

SEQ ID NO:1730

LENGTH:215

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01948

SEQUENCE DESCRIPTION:

GATCAGCTGA TGGAGCTCCT GATTGACAA AGGAGCTTNC CTCCTTTGAA TGACCTAGAG 60  
CACAGGGAGG AACTTGTCCTA GTAGTTTGA ATTGTGTTCT TCGTAAAGAC TGAGGCAAGC 120  
AAGTGCTGTG AAATAACATC ATCTTAGTCC CTTGGTGTGT GGGNNNTTGG TTTTTTTTTT 180  
ATATTTTGAG AATAAACTT CATATAAAAT TGAAA 215

SEQ ID NO:1731

LENGTH:107

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01949

SEQUENCE DESCRIPTION:

GATCGCACCG CCCCTCGCAG AGAGTGTATC ANCTGTTTTA TTTTGTAAG AACAAAGTGC 60  
TAAATAATAT TNATNACTTG GTTTGGTTNC AAAANCGGAT TAAATGN 107

SEQ ID NO:1732

LENGTH:107

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01950

SEQUENCE DESCRIPTION:

GATCACTGTG GTNTTCATAT TTCTAAAATA AATGAATTAA AAANTTTAAN GNCTTAGATG 60  
CTTATCTCTA TCATAGCTCA GAATGCAACT NCAATACCCC CATTCTN 107

SEQ ID NO:1733

LENGTH:106

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01951

SEQUENCE DESCRIPTION:

GATCAACTGT ACGCCTTTGG TATCTGACCA TAAAGTCTTT TGCTCCGCTG ACATTGGGGT 60  
GATGTCTTCA CATGGAAATA TAATAAAAT AAAAATCTAG TTAAAA 106

SEQ ID NO:1734

LENGTH:106

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01952

SEQUENCE DESCRIPTION:

GATCGAGGCT TCAGTGAGAT ATGGCTGAGA CACTGCTCTC AGCCTGGATG ACAGAGTGAG 60  
AACCTGTCTC AAACAAGAGA AAAAAATAAA TCAAANNCTA TTCAAA 106

SEQ ID NO:1735

LENGTH:151

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01953

SEQUENCE DESCRIPTION:

GATCTGAGGA GGCTTCGTGG GCTTTTGGGT CCTCTAACTA GGACTCCCTC ATTCCTAGAA 60  
ATTAACTT AATGAAATCC CTAATAAAAC TCAGTGCTGT GTTATTTGTG CCTCATTTCC 120  
CCAGGAATAG TCACTGCCTT GAGGAACCAA A 151

SEQ ID NO:1736

LENGTH:106

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01954

SEQUENCE DESCRIPTION:

GATCCACCCA CCTNAGGCCT CCCAAAGTGC TGGGANNACA GNCGTGANAA CCACGGCTTC 60  
GCCACAATG GATTTTAAA TTATTCCAC GTCACAAAA AACCTN 106

SEQ ID NO:1737

LENGTH:106

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01955

SEQUENCE DESCRIPTION:

GATCNANCT CAACACCTAG TGCAATTCTT TTTACACATT AGGNACTTAG TAATTNGGGT 60  
TGAATTGTGT TGAACCTAACC TGGCGGTATA GGCAAAANTT GGAAGN 106

SEQ ID NO:1738

LENGTH:105

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01956

SEQUENCE DESCRIPTION:

GATCTCCCAT TTCTAGGAAC CCCAGTCCTG CTTCTCCGCA ATGGCACATG CTTCCACTCC 60  
ATCCATACTG GCATCCTCAA ATAAACAGAT ATGTATACAT ATAAA 105

SEQ ID NO:1739

LENGTH:105

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01957



## SEQUENCE DESCRIPTION:

GATCCAAGAG ATATATTTGG CAACTTTTTC TAGAAAAGGC ACATTGGGTA TAATTCATTA 60  
CATTCTTGAG TTTTITGGG TTTTITTTT TTTTITNGNG NNANN 105

SEQ ID NO:1740

LENGTH:107

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01958

## SEQUENCE DESCRIPTION:

GATCCAGCTG GAAAGCTGAA GTATTTTCGAT AAAGTGAATT GAGAAATACT TCTTCAAGTT 60  
ATGATGCTTG AAAGTTCCTA ATAAAGTCA CGGTTTCATT ACCNAAA 107

SEQ ID NO:1741

LENGTH:119

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01959

## SEQUENCE DESCRIPTION:

GATCTTAAGG TATCAGTATT TCAGAATCCT GCGACGATTT TATTTCTAAA TTCATGTACT 60  
GTATGTCAT AAGTGAAAT AAAATNTCAT ATTCTTTTCT ATNATTGGTA TCATTCAA 119

SEQ ID NO:1742

LENGTH:114

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01960

## SEQUENCE DESCRIPTION:

GATCCTTAGC TCTTTGCTCT ATGGCCCTTC CTCATCAGGG GACCGTTTCC CCCCTCTTCC 60  
TTCACAGTAT TTAAGAAATA AAAGTCGGAT TTNCTGGCT GCTTTCTCTC TAAA 114

SEQ ID NO:1743

LENGTH:102

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01961

## SEQUENCE DESCRIPTION:

GATCGCCCCA TTGCACTNCA ANCTGGACAG CAAGAGCAAA ACTCCGTNTC AAAAAACAAA 60  
AACAAAAANCA AACAAAAAN TTCCCTGAG AGAAAACCTA TN 102

SEQ ID NO:1744

LENGTH:101

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01962

## SEQUENCE DESCRIPTION:

GATCACACAC TAAGAGAACG TTGATTGCCT CGGCTATTGT GCTGGCTGGA CACTTTGGTC 60  
ACTTTTGAAG CATGTTAATA AATGTCACTG ATTAAAACAA A 101

SEQ ID NO:1745

LENGTH:100

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01963

## SEQUENCE DESCRIPTION:

GATCCAAAGTT TGAAAACAAT TTTAGGCTAC TAGATATGAA CAACATCTTG ATTATGTAGT 60  
TGAAGGAAAT TAAAGATGAA TGGTTTAATT AAAAATTAAA 100

SEQ ID NO:1746

LENGTH:99

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01964

## SEQUENCE DESCRIPTION:

GATCAAATTA AATAATTCAA GCCCTGCCTT CAAAATGAAA TTTTTTTTTT AGTATTATTT 60  
AGCAAAANCA ATAAAACCCA AATTTTTTTA ACCATCAAA 99

SEQ ID NO:1747

LENGTH:97

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01965

## SEQUENCE DESCRIPTION:

GATCACTTCA AGCAAGCCCC CATGATGGTT CTCAGTCCTG CTTCTCTGTG GGTACGTGCC 60  
CCTCTGTTTA AAAATAAACT GAATATGGAT GTTTAAA 97

SEQ ID NO:1748

LENGTH:100

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01966

## SEQUENCE DESCRIPTION:

GATCAAAATG AAAACCTGTT GATGTGAATT CAGTTATTGA ACTTGTTACT TGTTTTTGCC 60  
AGAAATGTTA TTAATAAATG TCAATGTGGG AGATAATAAA 100

SEQ ID NO:1749

LENGTH:95

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01967

## SEQUENCE DESCRIPTION:

GATCTGATGT TCCTTTTATT TATAACAATG TTAAATGCAA TTGTCTTGTA CCTTGAGTTG 60  
AGTATTACAC ATTAAAGTAA AGTACAAGCT GTAAA 95

SEQ ID NO:1750

LENGTH:94

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01968

## SEQUENCE DESCRIPTION:

GATCCAGAAG TAAATGTATC TNCAAGCTGA TTTAAATTGT AGATTNNTC TTCATTGCAT 60  
ATTTNCTGAT GTTGAATAAA GTCTGAGTAT TAAA 94

SEQ ID NO:1751

LENGTH:89

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01969

## SEQUENCE DESCRIPTION:

GATCCAAAGT ATATTTTAC TGAGAATATA TCTGAAAAA TTTGAATTGA GATTAAATTT 60  
TTAAATGAAA TATATTTACT TTTTTTAAA 89

SEQ ID NO:1752

LENGTH:89

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01970

## SEQUENCE DESCRIPTION:

GATCCTGGCC CCTCAACCTC CTGTGGAACC CAGCAGTTCT GTTATATCCC CTGCTACCCT 60  
AGATGAATTA AGACGGTTAA ATACTGAAA 89

SEQ ID NO:1753

LENGTH:89

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01972

## SEQUENCE DESCRIPTION:

GATCTGTCTT GCTTATTGTT GCCCCCTGCG NCTAGCACAA TTCTGACACA CAATTGGAAC 60  
TTACTAAAAA TTTNTTTTAA CTGTTTAAA 89

SEQ ID NO:1754

LENGTH:87

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01973

## SEQUENCE DESCRIPTION:

GATCATATGG TAGTTTTGTT TTACTAATCT AAGGGTACTA GCATCTACAA TNATATAGAC 60  
AAAATAAAAT ATTTCTTTAA TGGCAAA 87

SEQ ID NO:1755

LENGTH:85

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01974

## SEQUENCE DESCRIPTION:

GATCTGTTTT CTCTAAAATC TTACCATATT GTCTGTATAT GGTGTAAAT NCAATGGAA 60  
AGTAAACGT TTTGGCCCTG ATAAA 85

SEQ ID NO:1756

LENGTH:88

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01975

## SEQUENCE DESCRIPTION:

GATCCTGCTG GAAACCACGG CAACCTGTAT CCACTATTAG GAGGTAAAAA TCAATAAAAT 60  
GGCCCATTC A TTTGTGTTGT AGCTCAA 88

SEQ ID NO:1757

LENGTH:84

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01976

## SEQUENCE DESCRIPTION:

GATCTACAAC ATATAAAATT GTGTATTTTC NTTTGGTTGT CCCTATTAAC AAAAAAGTAT 60  
TTNAATAAAA ANTTGAAATG NAAA 84

SEQ ID NO:1758

LENGTH:82

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01977

## SEQUENCE DESCRIPTION:

GATCCCACTG TAAATTGGA AATGGGCAGT TCTGAATTTT CACGTTTGAA ATGTAAAATA 60  
TAAACTTCAG TCAATATCCA AA 82

SEQ ID NO:1759

LENGTH:82

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01978

## SEQUENCE DESCRIPTION:

GATCTGGACG TTCACGTGCA CTCTCTTCCT GTACAGTATT TATTGTTCTT GGCACCTTAT 60  
TTAAAGATAT TTGACCCTCA AA 82

SEQ ID NO:1760

LENGTH:81

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01979

## SEQUENCE DESCRIPTION:

GATCCTTACT CCTGCATTGT TCTTTGCCAG NGNCCTATTT AAAAATTTTA AAATTCTCAT 60  
TAAAGTCAGC TTGGGTTTAA A 81

SEQ ID NO:1761

LENGTH:79

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01981

## SEQUENCE DESCRIPTION:

GATCTAAAGA GAAAGGGGAG AAGAGGGAAA AAGGAAACAA AGGAGAAGAA AGAGGGAAAG 60  
GAAAAAAAAG AAAAAGAAA 79

SEQ ID NO:1762

LENGTH:79

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01982

## SEQUENCE DESCRIPTION:

GATCATGAAA GGTGATAAGC TCTTCTATGA TAGGGGAAGT AGCGTCTTGT AGACCTACTT 60  
GCGCTGTTGT ACTCTGAAA 79

SEQ ID NO:1763

LENGTH:80

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01983

## SEQUENCE DESCRIPTION:

GATCAAATAT TTGCTTTN ACTNAAATCA GCCAGCCCAT NACCCCAAT AAAGGGCAGC 60  
TGCCTCTGCT CCCTCTGAAA 80

SEQ ID NO:1764

LENGTH:79

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01984

## SEQUENCE DESCRIPTION:

GATCAAATTT CTTAAAGCAA ACAACAAAAA TGTACATTC TGTTTTCCT TTATAAAAC 60  
AGGTGTAATC TTTATCAA 79

SEQ ID NO:1765

LENGTH:78

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01985

## SEQUENCE DESCRIPTION:

GATCTAGTGT CCTTTTGTGA CACTAAACAG GTGAATGCTG ACTTTTTTCA TTCTCCAATA 60  
AATNTCACTG AACTGAAA 78

SEQ ID NO:1766

LENGTH:75

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01986

## SEQUENCE DESCRIPTION:

GATCTTTGTT TAGTTTCAAG TCTTTTATA ACTAAATCTG CTGGCATTAG ACAATAAATA 60  
CATTTTCAAA ATAAA 75

SEQ ID NO:1767

LENGTH:75

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01987

## SEQUENCE DESCRIPTION:

GATCATATAT ACTTGATATA TATCATCCCT TCCCTTGATT TCTTTCAATC TAAAAATAAA 60  
TATGAGAAAA ACAA 75

SEQ ID NO:1768

LENGTH:78

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01988

## SEQUENCE DESCRIPTION:

GATCGATATT AATGTATCCA ATGAAATAAT CGACTTGTNC TTGATAGCCT CATTAAAGCA 60  
TTTGTTTTN CACATAAA 78

SEQ ID NO:1769

LENGTH:74

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01989

## SEQUENCE DESCRIPTION:

GATCTGAGCC CCCAAGATGG AGAATGGGGA GGAGCTTTT ATGGCGGACT GATTAAACT 60  
CTTAAGCATT TAAA 74

SEQ ID NO:1770

LENGTH:72

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01990

## SEQUENCE DESCRIPTION:

GATCTGCTTG GCCTTGATAA GCTATGTTGT TGCAC TTAA ACATT TAAAT TATACAATCA 60  
TCAACCCCA AA 72

SEQ ID NO:1771

LENGTH:69

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01991

## SEQUENCE DESCRIPTION:

GATCCTCCCC TTCAAATGAC TGTAATTAAC AACACTTAAA AAAGTTGAAT AAAATATTGA 60  
AACCTCAAA 69

SEQ ID NO:1772

LENGTH:68

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01992

## SEQUENCE DESCRIPTION:

GATCTATTCT GAAGCTGTTT ATTTTAACA AATAAAATGT TACAGGTTTC ACATGATTGA 60  
TTCTCAAA 68

SEQ ID NO:1773

LENGTH:66

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01994

## SEQUENCE DESCRIPTION:

GATCCGTAAC TNCGGGATAA GGATTGGCTC TAAGGGCTGG AGAAGGAATG AATAAAAAA 60  
AAGAAA 66

SEQ ID NO:1774

LENGTH:67

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01995

## SEQUENCE DESCRIPTION:

GATCCCATGT CTCTGCCAGG ACCAAGGCNG ATGTTTCCCC ACTAATAAAG TGCCGGGTGT 60  
CAGCAAA 67

SEQ ID NO:1775

LENGTH:65

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01996

## SEQUENCE DESCRIPTION:

GATCCTTTTT AATACCACAG CATTTGTACT GTTCCTTTT AATATACTGA AAATATAAAA 60  
GGAAA 65

SEQ ID NO:1776

LENGTH:71

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01997

## SEQUENCE DESCRIPTION:

GATCCGATTA TTTCTGCCAG TNTATTTTGG NCACTTTATA ATCATTAAAG CACTTCTTG 60  
GCAGGCNCAA A 71

SEQ ID NO:1777

LENGTH:72

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01998

## SEQUENCE DESCRIPTION:

GATCTTACAA TAATGTTCCA CTCTGCAAAT TTTAAGGTT CAAATAAAGT TTAATTGTTT 60  
GCAAACTGTA AA 72

SEQ ID NO:1778

LENGTH:65

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS01999

## SEQUENCE DESCRIPTION:

GATCATTGCA CCATGTCAGA CTTTGTATA TNCCTTGAAA ATAAATGAAA GTNAGAATCH 60  
TCAAA 65

SEQ ID NO:1779

LENGTH:62

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02000



## SEQUENCE DESCRIPTION:

GATCCTGTCC TGATTCTCAA AAATTATTTT CTCTGTATGA TTAAAAGTTT ATTCCATTTA 60  
AA 62

SEQ ID NO:1780

LENGTH:66

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02001

## SEQUENCE DESCRIPTION:

GATCCCTTCA TTTGAATATT AATGGCTTTT TCCATTAAAG AATAAAATAT TTTGGACAAT 60  
GCCAAA 66

SEQ ID NO:1781

LENGTH:68

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02002

## SEQUENCE DESCRIPTION:

GATCAAATTT ATAAGTTATT ATTTTAAATT TTCTAAATTA AATAAAAGAA AGAATGCAAA 60  
CCAGGAAA 68

SEQ ID NO:1782

LENGTH:59

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02003

## SEQUENCE DESCRIPTION:

GATCAATAAA GAGTAATTC TTGCTAAATA AATAAAAGAA ACCTTGTTGA AAAACTAAA 59

SEQ ID NO:1783

LENGTH:59

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02005

## SEQUENCE DESCRIPTION:

GATCTGAATN ATGCACCCCA CCCCCACCCC AATAAAGAAA TAACAGAAAA CCCTCGAAA 59

SEQ ID NO:1784

LENGTH:58

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02006

## SEQUENCE DESCRIPTION:

GATCTTCATT TTTTTTTTAA AACTTGGCGT TTTTGAATA AAAACCTTTT GTCTTAAA 58

SEQ ID NO:1785  
LENGTH:59  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS02007  
SEQUENCE DESCRIPTION:  
GATCTCAGTT GTAAATAGAA AAATCTAATT CAATAAACTC TGTATCAGCC CCCAACAAA 59

SEQ ID NO:1786  
LENGTH:52  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS02010  
SEQUENCE DESCRIPTION:  
GATCCAAAGT CATGTGTCCA CACATTCATA AATAAAAATT TTACCTATGA AA 52

SEQ ID NO:1787  
LENGTH:51  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS02011  
SEQUENCE DESCRIPTION:  
GATCCAGTGA AGCCAGAAGC CAAATAAACT CAAAAGCTGT CTCCCCACAA A 51

SEQ ID NO:1788  
LENGTH:54  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS02012  
SEQUENCE DESCRIPTION:  
GATCCTAATT TATGCCTATG CAAAAAATAA ATAACGCCCA AGAGCTGTGG GAAA 54

SEQ ID NO:1789  
LENGTH:53  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS02013  
SEQUENCE DESCRIPTION:  
GATCGCCTAG TATGTTCTGT GAACACAAAT AAAATTGATT TACTGTCTGC AAA 53

SEQ ID NO:1790  
LENGTH:58  
TYPE:nucleic acid  
TOPOLOGY:linear

CLONE:HUMGS02025

SEQUENCE DESCRIPTION:

GATCCG TAGT AATAAATTCT CAGAGGACTC AGCCTTTCCT GCGGGTCTGG AGCTCAAA 58

SEQ ID NO:1791

LENGTH:597

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02039

SEQUENCE DESCRIPTION:

GATCAGAGTC TCTTGGGCAT TTTATATTTT GCATTCTGAT GTACCTAGGA GTTTTGTTAA 60  
 ACAGATGATG TATGTNAGTA TTTATCCCAT TTTATGCAAT TAACCAAATC AACCAAAAAA 120  
 AGTGACCATG AAGTCCTGTA TTTGTNTTTT TACTACATGT AGGAACTCTC ATGTGAATGA 180  
 GTACTGTAGT AATCCATTCT ATGGGAGCCT TATTCAGAA ATATTCAAA CTGGTGCAAA 240  
 TGGAAAAGAC TTTCTCTTTT CCTTTAAAGC TAAAGACAAG AATATCATGC TATACAGGTG 300  
 CAACTCAATC CCCGTTAATA AAAACCAATG TAGGTATAGG CATTCTACCC TTTGAAATAG 360  
 CTGTGTCCCA ACCTGTTGCC ATTGATTTTT TGGGAATGGC TTTAGGAAAT ATCCAAGTTG 420  
 TCCTTGGAAT TGTCTAACCA TGGNCATAAA CAGTTGTCTC CCTTCTACTT GTGTAGAATA 480  
 CTTTGGNCTT AATTTTCCCN CCAGATACAG GGGGGTACCT GCCTGTTTTT CNAAGGGTTT 540  
 ATTACTGGNG GTACCATTG GTAGGATTGT TTTAAATAAA AAAACCTGGT TTTTAAA 597

SEQ ID NO:1792

LENGTH:518

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02040

SEQUENCE DESCRIPTION:

GATCCAAAAC TGGACCCCTG GAGCCGTCGA CTCACAGATG GATGACATGG ACATGGACTT 60  
 AGACAAGGAA AAAANNCAGG ACTTGAAGGA GCTCAAGGTG CTAGTGGCTG ACAAGGACCT 120  
 TCTGGACCTG CACAAGAGCC TGGTGTGCAC TGCTCTCCGG GGAAGCTGG GCGTCTTCTC 180  
 TGAGATGGAA GCCAACTTCA AGAACCTGTC CCGGGGGCTG GTGAACGTGG CCGCCAAGCT 240  
 GACCCACAAT AANGATGTCA GAGACCTGTT TGTGGACCTC GTGGAGAAGT TTGTGGAACC 300  
 CTGCCGCTCC GACCACTGGC CACTCAGCGA CGTGCGGTTC TTCCTGAATC AGTATTCAGC 360  
 GTCTGTCCAC TCCCTCGATG GCTTCCGACA ACAAGGCCCT CTGGGACCGC TACATGGGCA 420  
 CCNTTCCGNG GCTGNCTNCT GCGGCCTGTN ATCATGACTG AGGTGGCCTN CCAAANGTTN 480  
 CGCCCAAGGT TGACAATAAA GTTGCTCTGA GTTTGAAA 518

SEQ ID NO:1793

LENGTH:513

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02041

SEQUENCE DESCRIPTION:

GATCTGTAAT TTTAATTTT ACCCTCTGTA CCCCATGACC TTATCCTTCC TCTCCTTCCT 60  
 TGTTACCCAT GAAAACTGG CAACATTCCA AGAATAGCAT CTGTACAAAG GGGAAAGAAC 120

ATAAAGGTAA AACAAAACAA AACAACATTT TGAGAACAAA GATGACCATA ACCACTGAAG 180  
 GGAATCACAT CTTTAAAGAC AAATTCATAT TCTTTTATTT GTTATGGCAG ATGACAAGAT 240  
 GGTACAACCT TTATTCTTTT NCAAAATAAA ACAAAGGGCA CAGCATCTGT AGTCAGCCGA 300  
 CAACTATTNC GGCCTTTTGG GGGTNGGTCT NGCCGTACTT GTGATTTTGA TGGTACGTGA 360  
 CCNTNTTCTG GAAGGCTTGC CCCNTTGCCC GTGTACATAG GTGCATTGGT TNCNTGGGA 420  
 GGGGCCCAAG NACTTTTNGG CNANNGTTGT ACTGGTATTG TNATGAAATT TNCGGTTGGN 480  
 CCTCTTGNA NTTTTTNTG CANGAANGNN GGN 513

SEQ ID NO:1794

LENGTH:499

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02042

SEQUENCE DESCRIPTION:

GATCTCTTAA GAGATGATGG ACTCATGTAT GTCACCCGAC TTCGCAACAC TGGGGTTCAG 60  
 GTGACTCATA ACCATGTTGA GGATGGATTC CATGGAGCAT TTTCATTCT GGGACTTAAA 120  
 ATTAGTCACA GACTTATAAA TCAGTATATT GAGTGGCTAA AGGAAAATCT ATAGTAAAAC 180  
 ATGTAGCTAT AACATATTTT AAAAATAAAA TCTGAAAACC TCAGAAAATT TGCATTAGAA 240  
 ATTGGTCTTT CTTAGAATGG TCTAGTTAAG TTCCACATGT AGCATAATTC TTAAATAGGC 300  
 ACTTTTCTGT TTTTTTTTNC TNACTGTGGG ATTTCATNNC AATTTTCTAC ATTGTCTATC 360  
 TGCTTTTNC TNGATTTTCC NCTTACACTG TTAATCTNAT TTTAAAAAA TGTACATNCC 420  
 NNGNANACNT TAANTTTGGG GAGTTNGGCT ACNANTTNAC GGTGCCAGG GGGNTTAAAT 480  
 GGTGGGGCCA ATTTTAAA 499

SEQ ID NO:1795

LENGTH:483

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02043

SEQUENCE DESCRIPTION:

GATCAAAGCG CCACTGCCCT GCACTTCCTG GGCCGCGTGG CAACCCGCTG NGCACAGCAT 60  
 GAGGCCAGGG NCCCAGAACA CAGTGCCTGG CAAGGCCTCT GCCCNTGGCC TTTGAAANAA 120  
 AGGCCAGCAG CAGATAACAA CCCCAGACAA ATCAGCGATG TGTCACCCCA AGTCTCCAC 180  
 CTTTCTTCT AATGAGTCGA CTTTNGCTG GAAAGCAGCC GTTCTCCTT GGTCTAAGTG 240  
 TGCTGCATGG AGTGAGCAGT AGAAGCCTGC AGCGGCACAA ATGCACCTCC CAGTTTGCTG 300  
 GGGTTATTTT AGAGAATGGG GGTGGGGAGG CAAAGAACCA GTGTTTAGCG CGGGACTACT 360  
 GTTCCAAAAA GANTTNCAAC CGNCCAGNTT GTTTGTGAAA CAAAAAAGTG TTNCCTTTT 420  
 CAAGTTTGAG AACAAAAATT GGGGTTTAA AATTAAAGTA TACCATTTT TGCATTTGNC 480  
 AAA 483

SEQ ID NO:1796

LENGTH:481

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02044

2153480

## SEQUENCE DESCRIPTION:

GATCCAAAAC GCTTCGAGGC ACCCCAAATT ACCTGCCCAT TCGTCAGGAC ACCCACCAC 60  
 CCAGTGTAT ATTCTGCCTC GCCGGAGTGG GTGTTCCCGG GGGCACTTGC CGACCAGCCC 120  
 CTTGCGTCCC CAGGTNNNA GCTCTCCCCT GGGCCACTAA CCATCCTGGC CCGGGCTGCC 180  
 TNGTCTGACC TCCGTGCCTA GTCGTGGCTC TCCATCTTGT CTCTCCCCG TGTCCCAAT 240  
 GTCTTCAGTG GGGGGCCCC TCTTGGGTCC CNTCCTCTGN CATCANCTGA AGACCCAC 300  
 GGCAAACACT GAATGTCACC TGTGNTGNC GNCTCGGTCC ACCTTGC GG CCGTGTGTTGA 360  
 CTAAACTNA ACTTCTTTA ACGGTAATAT TTCCGGCAA AATCCAATGG TTTGGGTTT 420  
 GGTCTTTAA CNTTGAAAC GGTGCAAAT CCAAATAAA GCAATATAA AGTCAATGAA 480  
 A 481

SEQ ID NO:1797

LENGTH:462

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02045

## SEQUENCE DESCRIPTION:

GATCTAAAAG GGTTCCTTA GAAAGGGCAA TATTGTCAA TGAAGTAAGC AGAAGGACTC 60  
 TGGGTTAGAA GCATCTGCAC AAAAAGTGGT GAGACCTACT CTCCACTGCT CTGCAGCTGG 120  
 ATGGCTGATG GCAGGCTGAG CAGTGGGGAA GCAGGTTTA ACAACAGGGA GTCCTTCCAG 180  
 GTCAGTGTAT ATTNGAAGA AACATAAAC TATTGTCTGT TACATTCCGA GGTGAGCCTT 240  
 CTNCTTAACG TTTTATAATA TGCAATNCC AGCTTCTGGA AAGCANGTAT CATCATGTAC 300  
 CAAATGCTTT ATACACCATC ACATTCATGA NTTTTNAGC ATGGTCAGAN CTTGTGTA 360  
 TATGTCTCTT AGGATGATTT TGGGGGAGGA TGTGATTAT TTTCCATAAT TTCCAAANTN 420  
 GCATTTTCCA TTTCAAATA AGGNTAATCT NTTGGGGCCA AA 462

SEQ ID NO:1798

LENGTH:448

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02046

## SEQUENCE DESCRIPTION:

GATCAGCCTG CAGCCATCCC CCGACCCTGC TGCTAGGCCA CGGTCTGCGC CCTGGGGCCT 60  
 CATCTCCCC AGCCCACTTG TTTTCCCCC TTTTATCCC TAGGCCCTTT TCAGACTCCT 120  
 GGGCCCTTGG NNNCTCTTCT CCCATCTCCC TTCACAGGAT GACACCCTCC CATACCCCAT 180  
 AGCTGGGGCC AGCAGGTTCT GCTGAGGGTG GGGCTGGTGT AGGGACCCC AAGAGACCCC 240  
 TGTCCTGTCC CTTACACAGT CCTGGGGAGG CTGGGACTCC CCCTGCCACA AGCCTGGGCC 300  
 ACAGTTCACA TTCCACTGCT GGGAGAAGAA ACAGGCCGAG GCCCAANAGT GGCCTGCCCC 360  
 CGGGAGCCAA AGACCCNAGT GGCCACANTG GGATTAGGGT NGGGGAGGNT TGGNAGCGCT 420  
 NTTTTATAA ATATTATACA TAAGGAAA 448

SEQ ID NO:1799

LENGTH:448

TYPE:nucleic acid

TOPOLOGY:linear

00746

CLONE:HUMGS02047

## SEQUENCE DESCRIPTION:

GATCTGGTTG GTGGATGAAC AAGTGTCACG CTGGCCATCT CAATGGNGTT TATTACCAAG 60  
 GTGGCACTTA CTCAAAGCA TCTACTCCTA ATGGTTATGA TAATGGCATT ATTTGGGCCA 120  
 CTTGGAAAAC CCGGTGGTAT TCCATGAAGA AAACCACTAT GAAGATAATC CCATTCANCA 180  
 GACTCACAAT TGGAGAAGGA CAGCAACACC ACCTGGGGGG AGCCAAACAG GCTGGAGACG 240  
 TTTAAAAGAC CGTTTCAAAA GAGATTACT TTTTAAAGG ACTTTATCTG AACAGAGAGA 300  
 TATAATATTT TTCCTATTGG ACAATGGACT TGCAAAGCTT CACTTCATTT NNNNGAGCAA 360  
 AAGACCCCAT GTTGGAAAAC TCCATACCAG TTTTATGCTG ATTGATAATT TATCTACATG 420  
 CATTTCAATA AACCTTTTGT TTCCTAAA 448

SEQ ID NO:1800

LENGTH:432

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02048

## SEQUENCE DESCRIPTION:

GATCTGAATT ATCTGGCACC CTCCTGAATG GAACCCAGAG GTACCTCCTG TGTGGAAGGG 60  
 TCCTGGATTT TCCCTAACAC CCACCTCTC CCCCTCAGC CATGCTGATG GCAGAGAAGA 120  
 TAAGAACTTG GAGCCCATTT CTCACTGGAG AGGAAAACCT GTCATCTGGC TTTGCGGAGA 180  
 AGGTTCCACC TTACGCTCGT AGTACATTAT CTTTACTATG TGCTAGGATA TCATATTTAA 240  
 AAGGACAAAA AAATGTAATA TACTTGAATG AGCTTGTATT ATANCATTAA TATTATNNNG 300  
 NGTATCTGCT TTCCAGGCTG AAGTGATTCA TTCATTATTC TAGTCCTGCT TTAGTCCTTT 360  
 GTAATTTGTG GTAATTATGC TTTTCTTTT AATACAAAAA AATGTATAAA ATTAACACT 420  
 TGAAAAGGCA AA 432

SEQ ID NO:1801

LENGTH:430

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02049

## SEQUENCE DESCRIPTION:

GATCCGNGCG AGGGCAACAG CGGNTCACCT ACAGCGCACT GTCGATGGCT GCACGAGTCA 60  
 CACCGGAGCC TGGGGCAAGA CAGTGATTGA ATACAAAACC ACCAAGACCT CCCGCCTGCC 120  
 CATCATCGAT GTGGCCCCCT TGGACGTTGG TGCCCCAGAC CAGGAATTCG GCTTCGACGT 180  
 TGGCCCTGTC TGCTTCCTGT AAATCCCTC CATCCCAACC TGGCTCCCTN CNACCCAACC 240  
 AACTTTNCCC CCAACNNGG AAACAGACAA GCAACCAAA CTGAACCNNN TCAAAAGCCA 300  
 AAAANTNGGG AGACAATTC ACATGGACTT TGGAAAAATA TTNTTTTCCT TTGCATTCAT 360  
 NTNTCAANCT TAGTNTNTA TCTTTGANCA ACCGGANCA GGCCAAAAAN CAAAAGGTGC 420  
 ATTCANCTN 430

SEQ ID NO:1802

LENGTH:428

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02050

## SEQUENCE DESCRIPTION:

GATCCCAAGG GAAAGATGAT TTGTATGTTA AAGTGACTGC ACAAGTAAAA GTCCAATGTT 60  
GTGTGCATGA AAAGGATTCC TTGGTTATGT GCAGGGAATC ATCTCACATG CTGTTTTTCC 120  
TATTTGGTTT GAGAAACAGG CTGACACTAT TCTCTTTGAT TAGAAAATAA ACTCATAAAA 180  
CTCATAATGT TGATATAATC AAGATGTAAC CACTATAAAT ATGTAGAAGA GGNCGTTT 240  
AAAGACCTTA AGCTGGCATT GTGAAGGAAC ACCATGGTAG ACTCTTTTG TAAATGTATT 300  
TTGTATTTAA TGAATGCAG TATAAAGGTT GGTGANGTGT AATATANTTG TGTAACAAA 360  
TCCTGTTAAT AGAGAGATGT ACAGAATCGT TTTTGGTACT GTATCTTGA AACCTTTGTG 420  
AAAATAAN 428

SEQ ID NO:1803

LENGTH:401

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02051

## SEQUENCE DESCRIPTION:

GATCAAAACC AAACGTGTTCA ATGTGACAGT CTGAAAATTA TATACTCTAC TTCATTCATG 60  
TTACACTTTT TTCTACTCCT TACCTGCTTT TACTAATGCA TTTATCCCCA AGAAAACATC 120  
CAACAATATG GGACTAATTT GGAACAATAT CCAGCAATTG GTATTTAAAT AATTACTGG 180  
TTACAAAACA ATATTATGAC CAGACTCCAT TTTAGAAAAA ATTAAATCTG CATCGAAAAG 240  
GGCCTTAAAA AATAGATTTT TAAAATCAAA ATCATGGTTG GCTCATGGGT GGGATTATTA 300  
GTGTTCTTA TAGTAGTTTG TCTGGATGTA CTTTCTGATT CTCCTGTAAT AAGCATGCAT 360  
TGCTTTTGTA ATGNGGGAAT AATANACCA TAAAAAGGAA A 401

SEQ ID NO:1804

LENGTH:396

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02052

## SEQUENCE DESCRIPTION:

GATCCGGCTG CAAAATTCAT ACCAACCAAC AAATAAAGGA AGATACAAAG TCTTATAGAC 60  
ATCCGGAAAA AAGATTTTCTA CCTGTGCTGG TCTATGATGT ATGTGGCAGT TGCTGTCTGC 120  
AGTTTACAAT GTATTGTAAA TGAAGATTTT TTAAATTCTA TCTTGCTGNT TNNNTNNAA 180  
ATATAAGAAA CTGGTACTTG GTAAAGAAAT CTGTCCGTAA GTACCCCCAC AATCAGTCAA 240  
ACTATATTTA AAGCCAGCCT GTTTTCAGAG TATGATGTCC TTTAATGTAA ACTCAAATAT 300  
CAATATTTTA AATGTCCGGA TAATATTCTA GAGGTTTAAA AAATGGAAAT ATTTGANCTT 360  
TCTATTGAAG ACAATAAAGG TACACAAGTC GTTAAA 396

SEQ ID NO:1805

LENGTH:392

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02053

## SEQUENCE DESCRIPTION:

GATCAAGAGC AGTGCTTCTC CATTTGTTTT GCAGAGAAAT GTTTTTCATT TCCCGTGTGT 60  
 TTCCATTTCC TTCTGAAATT CTGATTTTAT CCATTTTTTT AAGGCTCCTC CCCATCTCCT 120  
 TTCTTAAGGC ACTGTTGCTA TGGCACTTTT CTATAACCTT TTCATTCCTG TGTACAGTAG 180  
 CTTAAAATTG CAGTGATTGA GCATAACCTA CTGTTTGTGA TAAATTATTG AAATCCATTT 240  
 GCACCCTGTA AGAATGGACT TAAAAGTACT GCTGGACAGG CATGTGTGCT CAAAGTACAT 300  
 TGATTGCTCA AATATAAGGA AATGGCCCAA TGAACGTGGT TGTGGGAGGG GAAAGAGGAA 360  
 ACAGAGCTAG TCAGATGTGA ATTGTATCTG TN 392

SEQ ID NO:1806

LENGTH:389

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02054

SEQUENCE DESCRIPTION:

GATCCTATTT GGTATGTTTT TGTCCACTGT TATGATTCAT CATGTATCTT ACAAGAGCCA 60  
 CTCAAGCAAG ACTCTGCTTC TATGTATGGT GAGGCCTTGT TGTTCTAGGC TAGAATAAAC 120  
 TCTTTGTATG CCTCAGTGAA TATGCCAGGT AAAATATATG CAGTCAAGAA TGAATTATTT 180  
 TTCTGACTAA AGTGTGTAGC AGTAAGTTCA AAATNGTGCC CTTGTTTAA CAGTTTCTGT 240  
 CAACATCTTC TCATTTTCC CTACAAAAAC ACCAGGGTGT ATTATAAGTA CTGCCTGTGA 300  
 GAATTTGCAC TTTATGTATT TGTGTGTGGG ATTTCTGTG GTTTTAGCCA AATGAAGTGT 360  
 TATCNNTAAT AACCAGGTCT CTTCATAAA 389

SEQ ID NO:1807

LENGTH:388

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02055

SEQUENCE DESCRIPTION:

GATCCAATTG ATGTATATGT TTATATACTG GGTCTTGTT TTATATACCT GGCTTTTACT 60  
 TTATTAATAT GAGTTACTGA AGGTGATGGA GGTATTTGAA AATTTTACTT CCATAGGACA 120  
 TACTGCATGT AAGCCAAGTC ATGGAGAATC TGCTGCATAG CTCTATTTTA AAGTAAAAGT 180  
 CTACCACCGA ATCCCTAGTC CCCCTGTTTT CTGTTCTTC TTGTGATTGC TGCCATAATT 240  
 CTAAGTTATT TACTTTTACC ACTATTTAAG TTATCAACTT TAGCTAGTAT CTTCAAACCT 300  
 TCACTTTGAA AAATGAGAAT TTTATATTCT AAGCCAGTTT TCATTTTGGT TTTGTGGTTT 360  
 TGGGTTAATA AAACAATACT CAAATAAA 388

SEQ ID NO:1808

LENGTH:379

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02056

SEQUENCE DESCRIPTION:

GATCTTTTCC ACCAGCACCC AGAGTGTCTT CTTTCTGGGC AAGGTCGTCG ACCCCACGAA 60  
 ACCATAGCCC TCCCAGGGCT GCTCATCTGT TCCAAGCAGG AGGATGTGGC AGGGGAGGGC 120  
 TGGGAGTGAG TAGCTCTGTG TTTAGAGTTG GGGACAAGGA TGACACCGAA GTCCAGGAGT 180



CCAGGACAGC AGGTGCTGGC CGGTGGGGAG CGGGGAGGGG CACTGAGATG GGCAGGGCCT 240  
 GGACATTCCA CACCCTGGTG CTGTGCAGCC TCTGGCAGAG CATCCGACCT CTTGGAGCAA 300  
 GTTCTGCCT CTGGAAGGG GCGGGGCCCT TTCACAACA GGCTGGTTTG TACCGAGTAA 360  
 ACAACACGNT GCCATGAAA 379

SEQ ID NO:1809

LENGTH:379

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02057

SEQUENCE DESCRIPTION:

GATCCTAGGG GGTTCGTTT GGTTCGTTT TGTGAGGAAT AAAAAATNTT CTGCCACAC 60  
 TGGCATTCTA AGGTGACTGA GGTCAAACGT TGTTTCCTTA GGTGAAATA GCAGCCAAAA 120  
 CATTCTTAC GCAGGGGCTT GGGATATGGC TGCTGGCAAC ACATTTTGT GTGGGCTCCT 180  
 TAATTTAATG ATAAATTTA AGCTAAACAC AAGCCAAAA TGAATAGGT TTTTNAATTT 240  
 TNATTTTCA CTAAACAGGC AATTGAAATA CATGGTACAA AAATAAGTG TAAGATAATT 300  
 GTAAATGGA AATGGGCAGA NTATTCAATT TTCCATCTAT GNAAATTTTC NCATTAAAA 360  
 TCATAGNTT CTTTGNAAA 379

SEQ ID NO:1810

LENGTH:358

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02058

SEQUENCE DESCRIPTION:

GATCNGTTCA GCCCTGAAAA GTCCAACTC CCAGGTATTG TTGCAGAAGG NCGAGATGAC 60  
 CTCTATAAAT CAGATGCATT CCATAAGGCA TTTNTTGAGG TAAATGAAGA AGGCAGTGAA 120  
 GCAGCTGCAA GTACCGCTGT TGTGATTGCT GGCCGTTTCG TAAACCCCAA CAGGGTGACT 180  
 TTCAAGGCCN CCNGGCTTNA AAAAGTTTTT ATAAGAGAAG TTCCTCTGAA CACTATTATC 240  
 TTCATGGGCA GAGTAGCCAA CCCTGTGTT AAGTAAATG TTCTATTCT TTGCACCTCT 300  
 TCCTATTTN GGTGTGTGAA CAGAAGTAAA AATAAATACA AACTNNTNNC ATCTCAA 358

SEQ ID NO:1811

LENGTH:358

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02059

SEQUENCE DESCRIPTION:

GATCGTTTCT NATCTCNAAG TNCCTCATTG AGNTCGGTGC ATCTGGCCAN TGAGTCTGCT 60  
 GAGACTCTTG ACAGCACCTC CAGCTCTGCT GCTTTCAACA ACAGTGACTT GCTCTCCAAT 120  
 GGTATCCAGT GATTCTGTGA AGAGGAGGTG CTCTGTAGCA GAACTGAGC TCCGGGTGGC 180  
 TGGTTCTCAG TGTTGTCTC ATGTCTCTT TTCTGTCTTA GGTGGTTTCA TTAAATGCAG 240  
 CACTTGTTA GCAGATGTTT AATTTTTTTT TTAACAACAT TAACTGTGG CCTCTTTCTA 300  
 CACCTGGAAA TTTACTCTN GAATAAATAA AAACGCTT GNCTTGNCT TCTGCAA 358

2153480

SEQ ID NO:1812

LENGTH:344

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02060

SEQUENCE DESCRIPTION:

GATCTATACT AGATAATCCT AGATGAAATG TTAGAGATGC TATATGATAC AACTGTGGCC 60  
ATGACTGAGG AAAGGAGCTC ACGCCAGAG ACTGGGCTGC TCTCCCGGAG GCCAAACCCA 120  
AGAAGGTCTG GCAGNNNTCA GGCTCAGGGA GACTCTGCCC TGCTGCAGAC CTCGGTGTGG 180  
ACACACGCTG CATAGAGCTC TCCTTGAAAA CAGAGGGGTC TCAAGACATT CTGCCTACCT 240  
ATTAGCTTNN CTTTATTTTT TTAACTTTTT GGGGGGAAAA GTATTTTAA GAAGTTTGTG 300  
TTGCAATGTA TTTATAAATA GTAAATAAAG TTTTACCAT TAAA 344

SEQ ID NO:1813

LENGTH:338

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02062

SEQUENCE DESCRIPTION:

GATCCAGTAG TAGAGACATC ATCGGTCCAA AAGACTTTGC ATCTCATTAG TTGTCCATAG 60  
TGACTACCAG GAGGTGGCTG GCATCTATAA CGTGTGGGAC GTTTTATGT AAAGAAGTGC 120  
CTGTGTTTTT TTTTNAACC AAAGACACTG NCCATAGATT GACTTATACT TTTATAAGTC 180  
TAATTGAAAT ACTTGGGGTA CTATGAAAGG NCTGTNCCTT GNGTGGCTAC GATTAGAAAA 240  
TCAGGNCTAA CAAACTTTTC TTTGTCTGGA NGCATATATA TTTGTGATAT AATTNNAATA 300  
TGTATAATTT TGGTTTAATA AATCAAATCT ATGCCAAA 338

SEQ ID NO:1814

LENGTH:336

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02063

SEQUENCE DESCRIPTION:

GATCCATAGA ATGGATACTG GGAGACAATT AGTAGACTTT GCTACAGGTA GCCAATAGCC 60  
CAGCCTGCAG AGTCACGTCA GATATGAAAT CCCAAAGTTC CTCCTGACTA TTGGCAACAA 120  
CAATCACTAA CTGCTACTAC AAAAAGGTAA AACAAAAATG AACTTACACT TTCAAAATAT 180  
CATTTCATGTA TATTAAACAA ATACTTCTTG AGTGTCTACC CAGTGCCAGA CAGTGGTCTA 240  
GGTTCTGGGA GGTACAGCAT CGTGGGCCAC ATGGTTAGAA GCTGAGTGT CTAACAAGG 300  
AGGCTGATTT TGCTGCTCTA CTTTGCCTG GTTAAA 336

SEQ ID NO:1815

LENGTH:335

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02064

SEQUENCE DESCRIPTION:

00751

GATCTGGATG TGGATGATGC GCCTGGAAAC AGTCAGCAGG CAACTCCGAA GACAACGAGA 60  
 TAAGCACCTT TCACAACCTC GGGAACGTTT ATTCCCGCT GAAGCTTCTC ACCAGCATGG 120  
 CCATCTCGGT GGTGTGCTTC TTCTTCCTGG TGCCTGACT GCCTGGTGCC CAGCACATGT 180  
 GCTGCCCTAC AGCACCTGT GGTCTTCCTC GATAAAGGA ACCACTTTCT TATTTTTTTC 240  
 TATTTTTTTT TTTTNGTAAN CCGGNANACC TCCTCCAGCC ATGAGGNNGG GGNNTANCCA 300  
 NGTGTNATGT TTNGGAAANN NAAATGGNAT CTTTN 335

SEQ ID NO:1816

LENGTH:335

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02065

SEQUENCE DESCRIPTION:

GATCCATGTG TAATATCACA AGAAATTATG GAAAAATATA ACATAAAATT AAAGTGGACA 60  
 AACCAACAAA AGCTTTATTC AAGAACAGGT GACATAGTTG AATTTGTTT TAAATCTGGA 120  
 TATCATCAA CAAAATCTCA TTCATTTCGA GCAATGTGTC AGAATGGGAA ACTGGTATAT 180  
 CCCAGTTGTG AAGAAAAATA GAATCAATGG CATTACTATT AGTAAAAATGC ACACCTTTT 240  
 CTGAATTTAC TATTATATT GTTTTCAATT TCATTTTCA AGTACTGTT TACTCATTT 300  
 TATTCATAAA TAAAGTTTG GTTTGATTG TGAAA 335

SEQ ID NO:1817

LENGTH:334

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02066

SEQUENCE DESCRIPTION:

GATCTTGATG CGGGACTTCA GTCCTAGTGG CATTTCGGA GCGTTTCAA GAGGTACTA 60  
 CCGNNACTAC AACAAGTACA TCAATGTGAA GAAGGGGAGC ATCTCGGGGA TTACCATGGT 120  
 GCTGGCATGC TACGTGCTCT TTAGCTACTC CTTTCTCTAC AAGCATCTCA AGCAGGANG 180  
 GCTCCGAAA TACCACTGAA GAGGACACAC TCTGCACCCC CCCACCCAC GACCTTGCC 240  
 CGAGCCCTC CGGNNGGAAC ACAATCTCAA TCGTTGCTGA ATCCTTTCAT ATCCTAATAG 300  
 GAATTAACCT CCAAATAAAA CATGACTTGG TAAA 334

SEQ ID NO:1818

LENGTH:328

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02067

SEQUENCE DESCRIPTION:

GATCCAAACA TGAAAGCTGG AGCTACAAGT GAAGGCGTTC TGGCAAATTT CTTCAACAGT 60  
 TTGTTGAGTA AAAAGACTGG CTCTCCAGGA GGCCCTGGTG TGAGTGGTGG TAGCCCTGCA 120  
 GGTGGGGCTG GAGGTGGAAG CAGTGGTTTA CCACCATCCA CAAAAAGTC AGGCCAGAAG 180  
 CCTGTCTTAG ATGTTTATGC AGAAGTAGAC AGAATTACAC GAAAACAGT TACAGTTTCT 240  
 CCCACAACAC CTACATCTCC TACGGAAGGA GAAGCTTCTT GAAGATACCA AATAAAGCCA 300  
 TTTATTCTGT TTTCTGGGNT AATGTAAA 328

SEQ ID NO:1819

LENGTH:328

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02068

SEQUENCE DESCRIPTION:

GATCGGGGCT GCTTATGCCT TTCGTTTATC CTTGGGGTTT GAGAGCGCTG TATTGGGAG 60  
 AGAGTTTAAA AATACATTAG GAGAGAGAAA CCATTAAAAG TTTCAGTGC AGAGATATTG 120  
 TAGGTGCTAA TACTGGATT CGTCTCANAT TTAATTCTT TNATGGGTCT GTTAGTCATT 180  
 CANCAATCC CATAAGTATG TGTTAATATT TNAATTGTGT AAAACTCATT TGTTACTTTA 240  
 CAGCCTGTAA TAGTGTGTCT GCATTTNCAA CCTGTTGCAA TAACTTTNCT GAAATATTAA 300  
 CACATTAATA AAACCTTTCT TAAACAAA 328

SEQ ID NO:1820

LENGTH:328

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02069

SEQUENCE DESCRIPTION:

GATCAGAGAA GAGGCTACTG GGGGAGAATT CAGTGCCCCC TTCGCCCTCT AGGGNGCAGA 60  
 CCTCCACTGC CATTGTCCTG TNAGCCGCCA AANACCCAC GGGGTGCCCG CATGTCCCTG 120  
 TCTANNNGCA GCCCAGGGCC CCCACTCCTG GCTCCTNACA CTTGCCTCCC CTATGGCCGC 180  
 TCTCCAGACC CTCCTCCTTT CTTCTCCCA CATCCGACC TGCTGTTCCC ACTCTGGGGT 240  
 TCTCAAGTCC ATGAACAGAT ATTGTTGCAT TTTCCACAAT GCTGATTAAA CATAATAAAC 300  
 AATCCAGAAA AGCAGTTTTG CCCAGAAA 328

SEQ ID NO:1821

LENGTH:319

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02070

SEQUENCE DESCRIPTION:

GATCCAAAAG CCAGTCTCAG GAGTTTACCC CTGGGATGGG GGATGCATCT NCACCTGACT 60  
 TTGGGGCCAC GTGCCCTGTG GCACCCAGC TCACTGGGAG TCTCAGGAGG GATAACCGGA 120  
 TTTNTGCTCT TCCCCGTGCT ACTCCACAT CACACAGAAA AATGGCATTCT CTCTCTGTCT 180  
 CTCCTTGCA TGGAGAGGGC AGACTGTGCA CATTCTACTA GGGTCCAAAT ACAGAAGGGC 240  
 CCAGGGCCCA GGGGCTTGCA GCTTCGTGAG GGGTCTCTGG CCCAGTTTCC AATGAATAAA 300  
 GTTCTCTTGA CAGCTCAAA 319

SEQ ID NO:1822

LENGTH:315

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02071

## SEQUENCE DESCRIPTION:

GATCATCAGA TGGTCGAGTA CTCTTGAAT GTCTCTTGC TGTTTACTGT GGCCTCTTTA 60  
 CAATGGTGAG ACTTATTTCT ACCCTCTACT TTCCACTATT ATNTTTTCC CCTATTGGAT 120  
 AATACTAGTC TGAGCAGCCC TAATACTAGA TGTACCTAAA CAGAGATACA AGCCAAGTCA 180  
 TTGTTCACTG TAGTCATTTC TTAGTATCTG TTTATATTTT GTCACACATC AGAATGTATA 240  
 TTTTATAGAG CATGTGTTTG TCTACTNGTT TGTCTACTAT AATATGTCTT TAATAAAGCT 300  
 AAAANCATTG TGAAG 315

SEQ ID NO:1823

LENGTH:315

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02072

## SEQUENCE DESCRIPTION:

GATCGCTTTT TTGCCGCTCA TATTGAATG CATTGGGTTT CCTGGACCAG CTATTTGCAC 60  
 AAGACTAGGG GGAGGTTGAG GGTGGCATA GCAGGCAGGG GCTGGGATAG ACATTCAACC 120  
 TAGCTNNNTT TCATGCTCTT AAGGCTTTAT TTTCTAGAA TGCCAAGAAA CCAACTTTCT 180  
 TTAAACATGA CTCATCTCTT CGATTTTCTT GTATAGGTCT TCCTCCCACC CCAAATCTAC 240  
 ACTTGTTAGA AACAGAATAA TTACCTTTGC TTAATCCATT ATCAACACTT GGAGATAGAG 300  
 ACTTTACACT TCAGN 315

SEQ ID NO:1824

LENGTH:332

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02073

## SEQUENCE DESCRIPTION:

GATCGAAAAG GGACCCTGCT TCCAATTTCC CTCTTCCATT CCTCGAGCTA CTCCAGGGCT 60  
 TAGAAGAATG CTCTGGTCT GTGGGTCCAG TGTTGTCTGT CATCCATTGA AGTGTCCCA 120  
 CTTTCAAGTG ACAATCCTCT CCTTGGCCCT GCCATAGGGC AGAGCATGTN TGGCATAGCA 180  
 GCCTGACTTT NATGCCCTAA TCTTGAGTTG AGGAAATATA TGCACAGGAG TCAAAGAGAT 240  
 GTCTTTATAT CTGACTGTAT ATAAATGAAG TTTTNGTT TTTTNGTT TCCTTTTGG 300  
 TGCAATAAAG TTTGTTTTGG CAGAAGGAGA AA 332

SEQ ID NO:1825

LENGTH:311

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02074

## SEQUENCE DESCRIPTION:

GATCAAGGCG CGGACGCTAT CTACGACCAC ATCAACGAGG GGAAGCTGTG GAAACACATC 60  
 AAGCACAAGT ATGAGAACAA GTAGTTCCCT GGAGGCCCCC ATCCAGGCCA GAAGGACCAG 120  
 GTCCACCCAG CAGCTGTTTG CCCAGAGCTG GAGCCTCAGC TTGAAGATGA TGCTCAAGGT 180  
 ACTCTTCATG GACCACCATT CGCTGTTGGC AAGAAACGGC TTTACTTACA AAACAGACTC 240  
 TTTACCTTCT GCTGTGTTTG AAGTATGTTT AGTCAGCATG CTCAGGAAAT AAATGTGAAT 300

TGCCCTTGAA A

311

SEQ ID NO:1826

LENGTH:309

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02075

SEQUENCE DESCRIPTION:

GATCTAGTGT TTGGAACGGA CGTTACCTGC TGGTTTGTGC ACAACAGTGG AAAAGGATTC 60  
 ATTGACGGGC ATTACAAGGA TTACTTCGTG CCTNAGCTCT ACAGCTTTCT CAAACGGCCT 120  
 TAAAGGTTTA TAGTTTGGGA AATTATATAT TATTATACAT CTTTCCCTG TCACTTTTGC 180  
 AGATATTCTT CGGTNCCNAT AATTAAAATG AACCAGATAT CAGGGTGGTT AATTAAAATG 240  
 AACCAGATAT CAGGGTGGTT TATAAAGCCT GTAAACACAC CTNAGAAAAT ANACATTTTA 300  
 CANATGAAA 309

SEQ ID NO:1827

LENGTH:301

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02076

SEQUENCE DESCRIPTION:

GATCATGAAT AACTGATTAG TAAGTCTTGC CTATATTTTC CTGATAGCAT ATGACAAATG 60  
 TTTCTAAGGT AACAAGATGA GAACAGATAA AGATTGTGTG GTGTTTGGGA TTTGGAGAGA 120  
 AATATTTTAA TTTTAAATG CAGTTACAAA TTATAATGTA TTCATATTG TACTTTCTGT 180  
 TAAATGCAT GATTGCAGAA TTGTTTAGAT TTTGTGTTTA TTCTTGATGA AAAGCTTTGT 240  
 TTGTTCTTGT TTTTAAGTTT GCACTCAAAT CTTAAGAAAT AAATCCACCC ATGTTATCAA 300  
 A 301

SEQ ID NO:1828

LENGTH:298

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02077

SEQUENCE DESCRIPTION:

GATCAGTGAA CTCTGGTTTT AAGATAATCT GAAACAAGGT CCTTGGGAGT AATAAAATTG 60  
 GTCACATTCT GTAAAGCACA TTCTGTTTAG GAATCAACTT ATCTCAAATA GTAACGCGG 120  
 GCCTAACTAT ATGAGATGGC TGAATAAATA CCACATCGTC TGTTTTCAC TGGTGATGCC 180  
 AAAATATTTT GCTTTATGTA TATTACAGTT CTTTTTAAAA CACTGGAAGA CTCATGTAA 240  
 ACTCTAATTG TGAAGGCAGA ATCTNTGCTA ATTTTTCAGA TTAAATTTCT CTTTGAAA 298

SEQ ID NO:1829

LENGTH:293

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02078

## SEQUENCE DESCRIPTION:

GATCCCTTAT CCAACATGGT TCTAACCTTC AGTACTAAAG AAGATGCAGT TTCCTTTGCA 60  
 GAAAAAATG GATGGAGCTA TGNCATTGAA GAGAGGAAGG TTCCAAAACC CAAGTCCAAG 120  
 TCTTATGGTG CAAACTTTTC TTGGAACAAA AGAACAAGAG TATCCACAAA ATAGGTTGGC 180  
 ACTGACTATA TCTCTGCTTG ACTGTGAATA AAGTCAGCTG TNCAGTATTT ATAGTCCATG 240  
 TATAATAAAT ACATCTCTTA ATCTCCTAAT AAATTGGACC TTAAACTAC AAA 293

SEQ ID NO:1830

LENGTH:291

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02079

## SEQUENCE DESCRIPTION:

GATCANNATT TGAAGAAGNT TTCTAGAAAT TNGGGGTAAG AAGTACTACC AAAATGTAAC 60  
 TNCTAATCAA GGGTGATGCA CAGCAAAAGC AATGGACCCC ATCCCTCTAA AGCCTGCCCT 120  
 CCTTTGCCCT CAACTGTATA TGCTGGGTAT TTCATTTGTN TTTTATTTT GGAGAAAGCG 180  
 NTTTTAACTG CAACTTTCTA TAATGCCAAA NTGACACATC TGTGCAATAG AATGATGTCT 240  
 GCTCTAGGGA AACCTTCAA NGCANTAAAA ATGCTGTNTT GAAATGCCAA A 291

SEQ ID NO:1831

LENGTH:288

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02080

## SEQUENCE DESCRIPTION:

GATCTGGGCC TGAATAAGGG TTATCGAATG GTGGTGAATG AAGGTTGAGA TGGTGGACAG 60  
 TCTGTCTATC ACGTTCATCT CCATGTTCTN GGAGGTCGGC AAATGCATTG GCCTCCTGGT 120  
 TAAGCACGTT TTGGGGATAA TTTTCTCTC TTTAGGCAAT GATTAAGTTA GGCAATTTC 180  
 AGTATGTAA GTAACACACT TATTTTGGC TGTNTATGA GAGATTCAAG AAATAATTTT 240  
 AAAACCGCAT ACATAATAAA AGACATTGTT GCATGGCTTA TAGTCAAA 288

SEQ ID NO:1832

LENGTH:288

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02081

## SEQUENCE DESCRIPTION:

GATCCAGCCT TAATNTTTT CTGACATCCT AGTAATAGCA GACCCTGCAC AAAGTGGATA 60  
 TCAGACTTAA TACTGTNAGG AGACAAAATA ATGAGAATAG TTTTACCAA GATAATNAAA 120  
 TCTCGCATCA TGTCTGCATT TTACCATAGA TTGGAGTGCA TCCTTAGGAA ACTGAATGTA 180  
 ACAAAAACCC AGGACATTTT TGGAATTGT ATGCTCTCTA GCAACTTTGT GTGAATTTT 240  
 ATACAAACAC TGTCTATGA GTTATATAAA ATGTTATAAA ACTAGAAA 288

SEQ ID NO:1833

LENGTH:285

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02082

SEQUENCE DESCRIPTION:

GATCCTGAGA ACTTCAGGCT CCTGGGCAAC GTGCTGGTCT GTGTGCTGGC CNNNCACTTT 60  
GGCAAAGAAT TCACCCACC AGTGCAGGCT GCCTATNAGA AAGTGGTGGC TGGTGTGGCT 120  
AATGCCCTGG CCCACAAGTA TCACTAAGCT CGCTTTCTTG CTGTCCAATT TCTATTAAAG 180  
GTTCTTTGT TCCCTAAGTC CAACTACTAA ACTGGGGGAT ATTATGAAGG GCCTTGAGCA 240  
TCTGGATTCT GCCTAATAAA AAACATTTAT TTTCATTGCA AGAAA 285

SEQ ID NO:1834

LENGTH:282

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02084

SEQUENCE DESCRIPTION:

GATCTCATGG GCTTTCCTG GAGGAAAGGT TTTTTTGTT GTTTTTTTT NAAGAACTTG 60  
AAACTTGTA ACAAGAGATG TCTGTAGCTT TTTNCCCAT CTGTAGTGTA TGTNAAGATT 120  
NCAAAACCTG AGAGCACTTT TCCTTTGTTT AGAATTATGA GAAAGGCACT AGATGACTTN 180  
AGGATTNCA TTTNCCCTT TATGCTCA TTTCTGTGA CGCCTTGTG GGGAGGGAAA 240  
TCTGTTTATT TTTNCTACA AATAAAAAGC TAAGATTCTA AA 282

SEQ ID NO:1835

LENGTH:279

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02085

SEQUENCE DESCRIPTION:

GATCTTAAGC TTTGATAAGA GCTGTGCTGT GGCTGAGTAT GGTGTGTATG TGAAGGTGAC 60  
TTCCATCCAG GACTGGGTTT AGAAGACCAT AGCTGAGAAC TAATGCAAGG CTGGCCGGAA 120  
GCCCTTGCCT GAAAGCAAGN CTTAGCCTG GAAGAGGGCA AAGTGGACGG GAGTGGACAG 180  
GAGTNGATGC GATAAGATNN GGTTTGAAGC TGATGGGTGC CAGCCCTGCA TTGCTGAGTC 240  
AATCAATAAA GAGCTTTCTT TTGACCCAAA AAAANTAAA 279

SEQ ID NO:1836

LENGTH:275

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02086

SEQUENCE DESCRIPTION:

GATCCATAGT GCTACCTGCA CCTCTGGATT CTGGATTCAC AGACCAAGTC CAAGCCCGTT 60  
CTTACGTCGC CATAAAGGCC CCCGAACGGC ATTCTCGGTA CTTCTGTTT TTTTGTACA 120  
TTTNATTAGA AAGGACTGTA AAATAGCCAC TTAGACACTT TACCTCTTCA GTATGCAAAT 180  
GTAAATAAAT TGTAATATAG GAAATCTTT GTTTTAATAT AAGAAATGAGC CTGTCCAATT 240  
TCTGCTGTAC ATTATTAATAA GTTTTATTAC ACAA 275



SEQ ID NO:1837

LENGTH:269

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02087

SEQUENCE DESCRIPTION:

GATCCGAAGA GGAACCTCTG GTCATCTTTA ACAAGAAAAT CAGCAAGAAC CCTACCTTTA 60  
 AGTTATTAAA GGACAAAGTC AAGCTTGTA AATGAACATT TGTGTATTTA AAANTTGAAT 120  
 CCATTCTGCT GACTTCTTAC TTTCAGTCT GTTTATAAAA TGTGTAATGA ATTCTAACAA 180  
 CTCAAATTTT GCTTTTTGAC GCNGTATTTT TANGTTANGN AAATATATTT NTGGTATAAC 240  
 TTTTATGCGA NAAATAAAAT ATATTCTGN 269

SEQ ID NO:1838

LENGTH:268

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02088

SEQUENCE DESCRIPTION:

GATCTCATTG TTTATTAACC TGTATTCTGT TTACATGTCT TTAACACAGT GGTTCCTAAA 60  
 TTGTAAGCTC AGGTTCAAAG TGTGGAAT GCCTGATTCA CAACTTTGAG AAGGTAGCAC 120  
 TGGAGAGAAT TGGATGGGT GCGGTAATT GGTGATACTT CTTTGAATGT AGATTTCCTAA 180  
 TCACATCTTT AGTGTCTGAA TATATCCAAA TGTTTTAGGA TGTATGTTAC TTCTTAGAGA 240  
 GAAATAAAGC ATTTTGGGA AGAATAAA 268

SEQ ID NO:1839

LENGTH:265

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02089

SEQUENCE DESCRIPTION:

GATCTATCTA AATATATTAA GTAAAATTAC ACCATTCACT TGTTGGGAAA ATAATCTTTG 60  
 GTTTGGAAGA TATTAACATA ATGGGCATCT TAGAATCATA AATCAGATGA AATGAGAGAC 120  
 AATGCAATAT TGTATAATTC CTGGATGATG CAATTGTTTT AATTGANTTT TCAAGTGCCA 180  
 TTATAAAGTT TAAAAATTA TCAATATGAG TTGGTGCCTA ATTTTNNNTT TCCTAAAAAT 240  
 AAAATTTTTC CTTTTATGA GTAAA 265

SEQ ID NO:1840

LENGTH:261

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02090

SEQUENCE DESCRIPTION:

GATCATAAAA CCTTCATTCC ATAGGTACCC TTTATCCTCA CAGATACAGA GACACCAAGA 60  
 AGAATCTGGA CAAATAGGAC TTGCTAAGTT CTCCACAGTT TATTACCATT AGATTATGTC 120

CTTTGTNCT CTGATTATAC TTCTGCATAA GACTGTACAT AAAANTACAC AAGTTTTCCT 180  
 ATTTNTTTT TGTCTTCATT TCTGAAGATT CCTGTCATGT AAAACTTACA GTAAATAAAT 240  
 GTGTGTGCTT TTNTCAATAA A 261

SEQ ID NO:1841

LENGTH:263

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02091

SEQUENCE DESCRIPTION:

GATCAGGTTA GGGCGAGCGC TACCTCTCCA GCCTCAGCTC TCAGTTGCAG CCCTGCTNAT 60  
 GCCTGCTTGG ACTTGGCCCC TGCCACCTCC NGCCTCAGGT GTCCGCTATC CACCAAAAGG 120  
 GCTCCCTGAG GGTCTGGGCA AGGGACCTGC TTCTATTAGC CCTTCTCCAT GGCCCTGCCA 180  
 TGCTCTCCAA ACCACTTTTT GCAGCTTTTT CTAGTTCAAG TTCACCAGAC TCTATAAATA 240  
 AAACCNGACA GACCATGAAC AAA 263

SEQ ID NO:1842

LENGTH:264

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02092

SEQUENCE DESCRIPTION:

GATCAGAAAG AAACCTTTTG TAGCAATATC AAGAATCTAG TTTCATCTGA GAACTTCTGA 60  
 TTAGCTCTCA GTCTTCAGCT CTATTATCT TAGGAGTTTA ATTTGCCCTT CTCTCCCAT 120  
 CTTCCCTCAG TTCCCATAAA ACCTTCATTA CACATAAAGA TACACGTGGG GGTCAGTGAA 180  
 TCTGCTTAN NATCCTGAAA GTTTCTGGGG CTTAAGATTC CAGACTCTGA TTCATTAAAC 240  
 TATAGTCACC CGTGTCTGT GAAA 264

SEQ ID NO:1843

LENGTH:246

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02093

SEQUENCE DESCRIPTION:

GATCAAATGT CACACAGCAG TTTCTTGCA ACCTTTTCAG CTCCCCATGC TCCAGAATAC 60  
 CCACCCAAGA AAATAATAGG CTTTAAAACA ATATCGGCTC CTCATCCAAA GAACAACTGC 120  
 TGATTGAAAC ACCTCATTAG CTGAGTGTAG AGAAGTGCAT CTTATGAAAC AGTCTTAGCA 180  
 GTGGTAGGTT GGGGAAGGAGA TAGCTGCAAC CAAAAAGAA ATANATATTC TATAAACCTT 240  
 CAGAAA 246

SEQ ID NO:1844

LENGTH:243

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02094

## SEQUENCE DESCRIPTION:

GATCTGTGTG CATGNTGTG TTTGTGTATA TATACATATC TAGGGCTAGT ACTTAGTTTC 60  
 ACACCCGGGA GCTGGGAGAA AAAACCTGTA CAGTTGTCTT TCTCTNATTT TNAATAAAAT 120  
 AGAAAAATCG CGCACTTGCG GTCCCCCCCC CACCCCTTT TTTAAACAAG TGTTACTNNN 180  
 NCCGGGAAAA TTTTCTGTC TTTGTAATTT TAAAACTTTA AAATAAATTG GAAAAGGGAG 240  
 AAA 243

SEQ ID NO:1845

LENGTH:240

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02095

## SEQUENCE DESCRIPTION:

GATCTAGTGA ACATTCGACC TCCATTACGG AGAGTTTCCT ATGTTTCACT GTGCAAATAT 60  
 ATCTGCTATT CTCCATACTC TGTAACAGTT GCATTGACTG TCACATAATG CTCATACTTA 120  
 TCTAATGTTG AGTTATTAAT ATGTTATTAT TAAATAGAGA AATATGATTT GTGTATTATA 180  
 ATTCAAAGGC ATTTCTTTTC TGCATGTTCT AAATAAAAAG CATTATTATT TGCTGAGAAA 240

SEQ ID NO:1846

LENGTH:239

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02096

## SEQUENCE DESCRIPTION:

GATCTAAGCA GCGTTCCAC AGCCCCCTCT AGATTCTTGG AGTCCGCAG AGCTTACTAT 60  
 ACGCGGTCTG TCCTAATCTT TGTGGTGTTC GCTATCTCTT GTGTCAAATC TGGTGAACGC 120  
 TACGCTTACA TATATTGTCT TTGTGCTGCT GTNTGACAAA CGCAATGCAA AAACAATCCT 180  
 CTTTCTCTCT CTTAATGCAT GATACAGAAT AATAATAAGA NTTTCATCTT TAAATGAAA 239

SEQ ID NO:1847

LENGTH:231

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02097

## SEQUENCE DESCRIPTION:

GATCCATCCT CTCTCCTAGC TGAGTAAATC CGGGTCTCTA GGATGCCAGA GCAGCGCACA 60  
 CAAGCTGGGA AATCCTCAGG GCTCCTACCA GCAGGACTGC CTCGCTGCCC CACCTCCCGC 120  
 TCCTTGGCCT GTCCCCAGAT TCCTTCCCTG GTTGACTTGA CTCATGCTTG TTTCACTTTC 180  
 ACATGGAATT TCCAGTTAT GAAATTAATA AAAATCAATG GTTCCACAA A 231

SEQ ID NO:1848

LENGTH:231

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02098

## SEQUENCE DESCRIPTION:

GATCCAAAAT GCTGACAGGT TCAAACAAAA TTGGAATTGA AAATCAGAGT GCGTTCAAGA 60  
 GTATCAAACA ATACTATCTT GTTACTTGCT TATTACCTTA GTAGACTGGA AGCAACACTT 120  
 CACACAAAAA AAGGGTTTGG ATGTAATTC GGATAAGAAG AGATGTTTCT GTAAAGTCTT 180  
 TCCTGAGANG CATATTATT GAGAAAAACA CATATTCTG TTTTAGTAA A 231

SEQ ID NO:1849

LENGTH:228

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02099

## SEQUENCE DESCRIPTION:

GATCTACCAT GTAAATGTT GTAGAGATAG AGCCATATAA CGTCACGTTT CAAAACACTG 60  
 TCTACAGTTT TGCTTCTCCT ATTAGCCATA TGATAATTGG GCTATGTAGT ATCAATATT 120  
 ACTTTAATCA CAAAGGATGG TTTCTGAAA TAATTGTAT TGATTGAGGC CTATGAACTG 180  
 ACCTGAATTG GAAAGGATGT GATTAATATA AATAATAGCA GATATAAA 228

SEQ ID NO:1850

LENGTH:236

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02100

## SEQUENCE DESCRIPTION:

GATCTACCGG CCCCCTGGG GTGCCCTTGG GGACTACCTC TCCTTCACCA TACCCCTGGG 60  
 CACCCCCTGA CAACTTCTGC ACATACTGGG GCCCTGCTTA TTNTCCAGG ACAGGCTCCT 120  
 TAAAGCAGAG GAGCCNGTNC TGGGAGCCCC TTCTCAAACCT CCTAAGACTT GTTTTCATGT 180  
 CCCACGTTCT CTGCTGACAT CCCCCAATAA AGGACCCTAA CTTTNGGNNN TNAAAA 236

SEQ ID NO:1851

LENGTH:227

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02101

## SEQUENCE DESCRIPTION:

GATCTATGGT TTCTGCCTAC CCAGGATAGT CTTGTCTCTA GACAATGTAT TGATGATGCA 60  
 AATGTTCTGG AACTAAATAG TGGTGATGGT GGCACAACAC TGTGAATGTA CTAAATGTCA 120  
 CTGATTTGTA CGTATTTAAT ATGAATTAAT TGTAAAAATG GTGAATTATA TTTATGTATA 180  
 TTTNACCATA ATAAAAATAT GCATTGGAAG ATGCATTTT TGTGAAA 227

SEQ ID NO:1852

LENGTH:229

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02102

## SEQUENCE DESCRIPTION:

GATCTTTGGA CCAGTTTCTA GCAAAGTTGT GTTTGAAAGA TACTCTATTA AAGAAGACTG 60  
TGGAATCTTT TTATCGGTGC CCATTATATC CTTAAGTTTG GATATTTAGC TGACCTTCGC 120  
TTTAACATAG GTCTAATTTA TTTGCCGTGT CATTTTCCAT ACAAATCAGT TGATTAAAA 180  
AAGTTCATTT CTCATACTGT GCATTAAAAT AAAAATTGA ACAATTAAA 229

SEQ ID NO:1853

LENGTH:224

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02103

SEQUENCE DESCRIPTION:

GATCTCCTGT TTTTTCAGG CTCCTAAAGT AACATCAGCC ATNTTNAGA TTGGTTCTGT 60  
TTTCGTACCT TCCCACTGGC CTCAAGTGAG CCAAGAAACA CTGCCTGCCC TCTGTCTGTC 120  
TTCTCCTAAT TCTGCAGGTG GAGGTGCTA GTCTAGTTTC CTTTTGAGA TACTATTTTC 180  
ATTTTGTGA GCCTCTTGT AATAAAATGG TACATTCTA TAAA 224

SEQ ID NO:1854

LENGTH:223

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02104

SEQUENCE DESCRIPTION:

GATCAAGGCC GGACCCCACT GCCCACTGC CCAACTGATA GCCACGCTGA NNGAATGGAA 60  
GGAAAAATTG CTGGACCTG CAAGCCCCGC TGTACAAGAA AATAATTAAG AAACTTTGG 120  
AGAGTTAGCT ACTAGCTGCC TACGTGTGTN CATTTGCTAT ATAGCATACT TCTTTTTTCC 180  
AGTTTCAATC TAACTGTGAA AGAACTTCTG ATATTTGTG TTN 223

SEQ ID NO:1855

LENGTH:227

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02105

SEQUENCE DESCRIPTION:

GATCCTAGTA ATTGCCCTAGA AATATCTTTC TCTTACCTGT TATTTATCAA TTTTCCCAG 60  
TATTTTATA CGGAAAAAAT TGTATTGAAA ACACTTAGTA TGCAGTTGAT AAGAGGAATT 120  
TGGTATAATT ATGGTGGGTG ATTATTTTTT ATACTGTATG TGCCAAAGCT TTACTACTGT 180  
GGAAAGACAA CTGTTTTAAT AAAAGATTTA CATTCCAAAA AAACAAA 227

SEQ ID NO:1856

LENGTH:219

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02106

SEQUENCE DESCRIPTION:

GATCTATACA AAGTCTTTGA GAGGTGTAA ATATGGTTAT TTATGCACTG TGGGATGTGT 60

TCTTCTTTCT CTGTATTCCG ATACAAAGTG TTGTATCAAA GTGTGATATA CAANGTGTAC 120  
 CAACATAAGT GTTGGTAGCA CNTAAGACTT ATACTGCGCT TCTGATAGTA TTCCTTTATA 180  
 CACAGTGGAT TGATTATAAA TAAATAGATG TGTCTTAAA 219

SEQ ID NO:1857

LENGTH:219

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02107

SEQUENCE DESCRIPTION:

GATCAAGAAA GACAAAAAGC CAGCCTGCAG CAAGCACTTT GGAGAGCAAA TCTGNAAAGA 60  
 GAGTAACGCG GAGTGTCAAG AGGTGTGCAG AAAATCCAAA GAAGGCTGAG GACAATGTGT 120  
 GTGTCAAGAA AATAAGAACC AGAAGTCATA GGGACAGTGA AGATATTGA CAGAAAAATC 180  
 GAACTGGGAA AAATATAATA AAGTTAGTTT TGTGATAAA 219

SEQ ID NO:1858

LENGTH:219

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02108

SEQUENCE DESCRIPTION:

GATCTGTCGG AACCAAGACA CAAAAGCAGC AAGAAGCGGG GAGAGAGAGG GATAGAAAAC 60  
 AAGCGCAGGA GAGCTGCGA ACGCAAAANT GAATGAGGGC TTTTGTGGC TGGGGATGGG 120  
 TTTTGGTTTT GGGGTTTTT TTTNAAAT GTTTGACTT CGTACAGGGT ACTTTTCCC 180  
 AACCTCATCT NTCAGAAATC CATGTGGGNT TCCTGGAAA 219

SEQ ID NO:1859

LENGTH:217

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02110

SEQUENCE DESCRIPTION:

GATCTGAAGA AATTACCAAA CATTAAAATG AGANAAATTT GCGCTAATGA TGCAATTCCC 60  
 AAGACGTGCA AGAGGAAAAC TATTATACT GTAGACCAAG ATTTGGGGGA ATTGGAACTA 120  
 AACGATGAAT CAAGTGATTC AGATGAGGAA ATGACTGCAG TGGCCTAATT GTCTTCACTT 180  
 GAATTGAAAA TAAATAATTT GAGAGCTTCA AATTAAA 217

SEQ ID NO:1860

LENGTH:216

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02111

SEQUENCE DESCRIPTION:

GATCCATTTC TTTAAATAC TGACATATAG AGTTGTACCT TATATAGAAT ATAGTTGTAT 60  
 CTTGAAGTCA ACATATTTAA TTATTCTCAA AATTATGTAT TTNCAGATTG TACTTGTAAG 120

TTTCAAAGAA AAATTACCGT CTTTTCATAT TGACCTGGAA ACTAAATAGG ATGTGATTCA 180  
GCTACATTAA TTTCTTAATA CAATCTAGGA AAGAAA 216

SEQ ID NO:1861

LENGTH:213

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02112

SEQUENCE DESCRIPTION:

GATCCTTTTC TTGAAAGAAT AACAGAAAAT GTGTCATCCA TTTTTCAGAA TATAACCACT 60  
CAAGCTACTG GCACATAGTG AAAGATTACT TCTGACATTC CATNCTCTT CTTTGGAAAA 120  
TTAGTATNGT AATTAAATGT ACTTTTGAA AATTAATAGA ATTATTTAAA TTACAGTATA 180  
TGTNGCAAAA TATATCACTT TTGATACAAT AAA 213

SEQ ID NO:1862

LENGTH:210

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02113

SEQUENCE DESCRIPTION:

GATCTATCTC ATCAAACAAC ACAATGAAGA TATTTTAGAG TACAAAAGAA GAAATGGGCT 60  
GGAATAAACT TTTGAAACAC TAATGTAGTA TGCTCCGTAT AGTGATTGTA GCTGTTCTC 120  
TGGATTACCC ATCTGTTGAG TTGTAAATGT GNGANAAAAA GTTATATGTG AATATATATC 180  
AAGCCAGCAT TTGTATTTTG CATCATTAAT 210

SEQ ID NO:1863

LENGTH:209

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02115

SEQUENCE DESCRIPTION:

GATCGGGGCT GCCAGAGGGN TAGAAGCGAG GGCACCAGCA GTTGTGGGTG GGGAGCAANG 60  
GAAGAGAGAA ACTCTTCAGC GAATCCTTCT AGTACTAGTG GAGAGTTTGA CTGTGAATTA 120  
ATTTTATGCC ATAAAAGACC AAGCCAGTTC TGTTNNNNC TGTAGCATCT TGAAAAGAAA 180  
AATTATAATA AAGCCCCAAA ATTAAGAAA 209

SEQ ID NO:1864

LENGTH:208

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02116

SEQUENCE DESCRIPTION:

GATCTGGAGC AACAGCTAGG AAATATCATT AATTCTGCTC TTCAGAGATG TTAAAAATAA 60  
ATTACACGTG GGAGCTTTCC AAAGAAATGG AAATTGATGG GAAATTATTT GTCAAGCAAA 120  
TGTTTAAAAAT CCAAATGAGA ACTAAATAAA GTGTTGAACA TCAACTGGGG AATTGAAGCC 180

AATAAACCTT CCTTCTTAAC CATTCAAA

208

SEQ ID NO:1865

LENGTH:201

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02117

SEQUENCE DESCRIPTION:

GATCTATACT TAGAATGCAA TGTNGACAGA GGGCAGTTAA AATATCCAAG ATGTATTCCA 60  
 AGACAAAGCA AACAAACAAC TGGAAGTGGT AATCAATTCA ACAGGCCTTC TGAATTNTCT 120  
 GAAGCNAAG CAACGTTTGC CATNNGATAT TTGTGACACT TTGGCAAATG GAAAAATAAA 180  
 CCAATTTATA CGTGCAATAA A 201

SEQ ID NO:1866

LENGTH:200

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02118

SEQUENCE DESCRIPTION:

GATCATGAAG GATCCACAC TTCCCCTTGC ATTCCTTCT TAACTCTCTG TTACACGTCA 60  
 TTGAACTAC ACTTTTTTGG TCTGTTTTG TGCTAGACTG TAAGTTCCTT GGGGGCAGGG 120  
 CCTTTGCTG TCTCATCTCT GTATTCCCAA ATGCCTAACA GTACAGAGCC ATGACTCAAT 180  
 AAATACATGT TAAATGGAAG 200

SEQ ID NO:1867

LENGTH:202

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02119

SEQUENCE DESCRIPTION:

GATCACATTT TGAATGCCT AAAAGACTTT ATTGTTCTAA TTATCCAGAT GTACCTTTGT 60  
 AAAATAGCTC TTTTATGAAT TAGCTGATAA GGCTGTATGT TTCTGGAACA AAATATTGGT 120  
 CATCTAAAN CTTTCTGTTT NCTGGGGTCT GGGAAAATAG AAAATAAGAT TTCAAATATT 180  
 AAATAAGCTT AANGGCACCA AA 202

SEQ ID NO:1868

LENGTH:200

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02120

SEQUENCE DESCRIPTION:

GATCAGGCCC TTCTTCCCAC AGCAATAGTC CCAATACGT AGATTTTTGC TCTTCTGTAT 60  
 GTGACAACAT TTTTGTACAT TATGTTATTG GAATTNCTT TCATACATTA TATTCCTCTA 120  
 AAATCTCAA GCAGACGTGA GTGTGACTTT TTGAAAAAAG TATAGGATAA ATTACATTAA 180  
 AATAGCACAT GATTTTCAAA 200



SEQ ID NO:1869

LENGTH:194

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02121

SEQUENCE DESCRIPTION:

GATCTNTNTG TTCATTGTAT TCTTTTNTC TCAAGAGTTC CATTTAATGG AAATAAAACG 60  
GTATAATTAA TAATTGTCTA GGGGGGAAAA ATGAAGCAAA TNTCATTGGA TATTTTAAAA 120  
GGTCTCCACA GAGTTTATGC CATATTGGAA TTTTGTGTA TAATTGTCAA ATAAATATTT 180  
TGGTGANGCA TAAA 194

SEQ ID NO:1870

LENGTH:190

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02122

SEQUENCE DESCRIPTION:

GATCCAATAC TATTAGTTT ATTATTGAAA TTGGAAGGAT TCATTGAGCA GCATAGAAGT 60  
TTGTTTACAT GTTACTTTGA GATGCTAGGT ATTTGTGGAA TAAAAAGAA TCAGGCTCTT 120  
TTGTACTNAN TTTTAAATC TGTGATGCTT NTCAAATTA ATTCATAATA AATTGATGCA 180  
ATTTCATAAA 190

SEQ ID NO:1871

LENGTH:188

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02123

SEQUENCE DESCRIPTION:

GATCGAACAG TTTTGAAGCT ACTGTGTGTG TGAATGAACA CTCTTGCTTT ATTCCAGAAT 60  
GCTGTACATC TATTTTGGAT TGTATATTGT GTTTGTGTAT TTACGCTTTG ATTCANNAGT 120  
AACTTCTTAT GGAATTNATT TGCATTGAAC ACAAAGTGA AATAAAAAGA AATGGCTGAA 180  
AGAGCAAA 188

SEQ ID NO:1872

LENGTH:184

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02124

SEQUENCE DESCRIPTION:

GATCCTATTT ATTTGTTTAG GCCATCTTCA ATTTCTTTCA GCAGTGTTTT GTAGTTTCCA 60  
TTAGAGATTT TCCATGTCNT TTGTTAAGTT TATTCCTAGG TATTTATTT TTTATGGTAT 120  
TNTATTATAA TCCTNNGATG TCTATTATAT AGAAATATAA TTNATTTTNG TTATTGACTG 180  
NNNN 184

SEQ ID NO:1873

LENGTH:181

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02126

SEQUENCE DESCRIPTION:

GATCCAAGTN CTGACTTTTC CCCCTGACAG CTGTGTGACC TTCGTGAAGT CGCCAAACCT 60  
 CAAATGAGCC CCAGTCATTG CTAGTAAGAC CTGCCTTTGA GTTGGTATGA TGTTCAGTT 120  
 AGATAACAAA ATGTTTATAC CCATTAGAAC AGAGAATAAA TAGAACTACA TTTCTTGCAA 180  
 A 181

SEQ ID NO:1874

LENGTH:181

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02127

SEQUENCE DESCRIPTION:

GATCTTAAAT TTTCTCATCT CAAAAAATA TGTAAGTGA TAGATATGTT AAATAGCTNN 60  
 TATGTATTTT GCAATGTGTA GTGTATATAT ATAAACATCA CACAGTACAC CATAAATATA 120  
 TTTAATTTT GTCAATTACT CTTTAAACCT TAATAAGTT GATAAACAT TCTTTTTTAA 180  
 A 181

SEQ ID NO:1875

LENGTH:179

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02128

SEQUENCE DESCRIPTION:

GATCAGGTTA GCAAATGATG TAAAGAAGC TTTATTGTCT AGTTGTTTTT TTTCCCCAA 60  
 GACAAAGGCA AGTTCCCTA AGTTGAGTT GATAGTTATT AAAAGAAAA CAAACAAAA 120  
 AAAAGGCAAG GCACAACAAA AAAATATCCT GGGCAATAAA AAAANTATTT TAAACAAA 179

SEQ ID NO:1876

LENGTH:178

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02129

SEQUENCE DESCRIPTION:

GATCCGGGAG CACACCGTTT CCTGATTGCT CAGGGACTCA TCTTCCCTC CTTGGTGATT 60  
 CCGCAGTGAG AGAGTGCGTG GGGCATGGAA GGCAAGATTG TGTCCCATTC CCCCAGTGCG 120  
 GCCAGCTCCG CGCCAGGATG GCGANGGAAC TCAATAAAGT GCTTTGAAAA TGCTGAAA 178

SEQ ID NO:1877

LENGTH:175

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02130

SEQUENCE DESCRIPTION:

GATCATTCTC CGAAAGCAAC TCCTGACAAT TAAGCATTTT TTTCTCCAAA TACAAAGTAT 60  
ATTCTCTTTA TTGGAAAATA AATTAATAAA TATATTCTGT ATTTNNCTC TCCGTGAAAA 120  
ACAAAAGAGC CTCTGACATT ACTGTCTCTC AGTGTGGTT CAGATTGAGG CTTN 175

SEQ ID NO:1878

LENGTH:172

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02131

SEQUENCE DESCRIPTION:

GATCAATCCT TCTTATGTTT GCTTTAATGT GTATTGAAGA AAAGCACTTT TAAAAAGTA 60  
CTCTTTAAGA GTGAAATAAT TAAAAACCAC TGAACATTG CTTGTTTTTC TAAAGTTGTT 120  
CACATATATG TAATTAGCA GTCCAAAGAA CAAGAAATTG TTTCTTTTCA AA 172

SEQ ID NO:1879

LENGTH:170

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02132

SEQUENCE DESCRIPTION:

GATCTGATTG TTAAAAAGTA CACAGCACCT CCCTCCCCAC TCTCTCTTGC TCCTGCTTTC 60  
ATCAAGTGAA AACTCCCTGA GGCCTCCTCA GAAGCTGAGT AGAGGCCAGC ACTATGCTTC 120  
CTGTACAGCC TGTGGAACCA TGAGGCAATT AAACCTCTTT TCTTTATAAA 170

SEQ ID NO:1880

LENGTH:168

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02133

SEQUENCE DESCRIPTION:

GATCAGAAAA ATTATCTTT TTTAACCCTG CCCTAATTTT TCTTGAGGAA TTAAATAGAG 60  
CAAACTATTT TCAGGTTATG CTTACAATAA AATATACTTA AGAAAATGAC TGAAGATGTA 120  
TGTTTTTGAA TGTTTTGATT AAATAAATGT ACACATTTAG AACACAAA 168

SEQ ID NO:1881

LENGTH:168

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02134

SEQUENCE DESCRIPTION:

GATCAGCCTC CCGTAAGCC AGTTATCAGT ATCCAAGTGC TTAAACACAG GCTTCTCAGA 60  
AGAAATCATT TTTATTCCTA CCATTATTTT ATACCAAAGC ATCATTATGT GCTACAGTTC 120

CAATTTCTTA CACAAGAATG AAAAGGGTTA CCAATGCAGC AAGTTAAA

168

SEQ ID NO:1882

LENGTH:167

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02135

SEQUENCE DESCRIPTION:

GATCTTACTG TAAGTTGAAG GGAGTTTTCG CTTAACTCAT GGATTGTGCA AGAATGAACT 60  
GCTGTTGGGT TTACTGACT GTCGATGGAT TGTGGTGTGG TGTATCTNAA GGCTATTGAA 120  
TGCAACTTAC AATGCTTAGG TAAAAATCTT TATNCTTTTA GTATAAA 167

SEQ ID NO:1883

LENGTH:165

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02136

SEQUENCE DESCRIPTION:

GATCCTTGAT GAGCCAACAT TGCAGTGTGG ATACATATCT ATGTTTACGC GCTATTAGAA 60  
CAGAAGGCGC TGTATATAGA AATGTTGCTT TGAAGCAATA TTTGCAAAAC ACNCAGACTN 120  
CAGNATCTGT ATTTGAAAAA AATAAACAG GTTCTTGTG CTAAA 165

SEQ ID NO:1884

LENGTH:168

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02137

SEQUENCE DESCRIPTION:

GATCTGACCT CCACGGAGCC GCTGTCCCG NCCCCCTTGC TTCCCGTCTG TCTGTCCTGT 60  
CTGATTCTNT TAGGTGTCAT GTTCTTTTT CTGTCTTGTG TTCAACTTTT TTTAAAACTA 120  
GATTGCTTTG AAAACATGAC TCAATAAAAG TTTCTGNCC AATTAAAA 168

SEQ ID NO:1885

LENGTH:163

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02138

SEQUENCE DESCRIPTION:

GATCAGGATG GCTTCACAAG CCAGCTGTTG GGTTTGCTAT GTCAGTGTGG CTCAGTCACA 60  
TCCCTGCGTG TATACTGTCT GCGGGGCACA TATGTATCCA TTTAGAGCTA AAGGAATCAG 120  
TGTAACACTAC AGCTAATCCT AATAAATCCG ATGTTTTTCGG AAA 163

SEQ ID NO:1886

LENGTH:159

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02139

SEQUENCE DESCRIPTION:

GATCTAGCAG CATGCAAACA CATCACCTAA ACTACAAAAG AAAGGTCCTC ACTGTCTCTA 60  
 AAAAATAAAC TCATTAACCT TGAGTTATTT GCAGACAGCC AAATCACCCA GGGCAACTTT 120  
 AAAGAGTCAG AAAATAAAC TTTCCCGTTG TATGACAAA 159

SEQ ID NO:1887

LENGTH:154

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02140

SEQUENCE DESCRIPTION:

GATCATGGAG GAAAAAGGTA CTGGATAAAA GTAAACTTCA AACCTTAGGG CGGGANACTA 60  
 AAACCAAAAT ACATGTATTA TTTATAGAAA ATATTTCTG TTTAATCTT TTCTNITTA 120  
 ACAAGGACTC ATACTTAAAA AAATGTTTAG CAAA 154

SEQ ID NO:1888

LENGTH:151

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02141

SEQUENCE DESCRIPTION:

GATCTCTGAT GACCTAACCT AAGCAAAACC ACTGAGCTTC TGGGAAGACA ACTAGGATAC 60  
 TTTCTACTTT TTCTAGCTAC AATATCTTCA TACAATGACA AGTATGATGA TTTGCTATCA 120  
 AAATAAATTG AAATATAATG CAAACCATAA A 151

SEQ ID NO:1889

LENGTH:150

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02142

SEQUENCE DESCRIPTION:

GATCTATATT CTCTTAATT TTTATGGCTA TATTTAATGT TTTCCATCAT TGTGCCTTTA 60  
 AAAAGTATAT GTACATGTAT GCATAAATTT ATGTGAAGTT ATATATANGN NTCCGTTATT 120  
 CCAGATTAAA GTTTATCTTT AGTAATCAAA 150

SEQ ID NO:1890

LENGTH:149

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02143

SEQUENCE DESCRIPTION:

GATCAAAAAT ATGTGACCTT AATGAGATTT TTATGATTTT TAAAGTAACA ATAAAAGCAG 60  
 TTTTtagagt TGAGTTCCAG AGAGGGCAGG GCAATGGCAG TNACATGTTT GTCATTTTAA 120

TAATAAATAA CATCTATTGA GTNCTTAA

149

SEQ ID NO:1891

LENGTH:148

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02144

SEQUENCE DESCRIPTION:

GATCCGCGGG GACCCTGCCG AGGGGGCTGT CATGCGGTTT CCAAGGTGCA CATTNCCAC 60  
GGAAACAGAA CTCGATGCAC TGANCTGCTC CGCCAGGANA GTGAGCGTGT AGGTNCCTGA 120  
GGAATAAAAT GTTCCGATGA TGTGGAAA 148

SEQ ID NO:1892

LENGTH:147

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02145

SEQUENCE DESCRIPTION:

GATCCCCGTT CTTCAAGCTT CTCTGCTCAG TGTCTACTAA CGACCGACAT TTGCTAATGT 60  
AAATAATAGT AATNATTGA GAATTCTAAT TCTTTTACAC AGTCTGTTTT TAATCTATTT 120  
TAATTAAATA AATCTATGA CTCTAAA 147

SEQ ID NO:1893

LENGTH:146

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02146

SEQUENCE DESCRIPTION:

GATCTGGGAG TAAACTTAAC ATTCAGTGTG TCTCTGCTCT GCATCCGCCA TTTGTGTGTG 60  
TTTCTGGACT GTGGGCTGTG TGTACCTTGG TTGGTGACTC AGTGAGAAGA AGCAGGAATN 120  
CCAAAGATAC TGTGAATNTT CTGAAA 146

SEQ ID NO:1894

LENGTH:144

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02147

SEQUENCE DESCRIPTION:

GATCTAAATG TCTAGTTTGG TATTCTTTTG TGTGTGTTCA CTGTTTCTCA GTATTACCAC 60  
TTGAATAATT CTCTGTACAG GGGGGTTTGT GCTATACACT GGGATGTCTA ATTGCAGCAA 120  
TAAAGCCTTT CTTTAAAAAG GAAA 144

SEQ ID NO:1895

LENGTH:141

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02148

SEQUENCE DESCRIPTION:

GATCTTGGA ATGCTTGAAG ACCACAAGGC TGAAAAGTGC TTTGCTGGAG TCCTGTTCTC 60  
AGAGCTCCAC AGAAGACACG TGTTTTTGT TCTTTAAAGA CTTGATGAAT AAACACTTTT 120  
TCTGGTCAAT GTCAAANNA A 141

SEQ ID NO:1896

LENGTH:142

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02149

SEQUENCE DESCRIPTION:

GATCCAGATA AACTTTCCTG TCATGTGTTA GAACTTTATT ATTATTAATA TTGTTAAACT 60  
TCTGTGCTGT TCCTGTGAAT CTCCAAATTT TGTACCTTGT TCTAAGCTAA TATATAGCAA 120  
TTAAAAAGAG AGAAAGAGGA AA 142

SEQ ID NO:1897

LENGTH:133

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02150

SEQUENCE DESCRIPTION:

GATCAAAGTG TGGGATGNGC TGCAAGACGT AGAACCTACC TGCCCTGCCC CCGTCCCCNC 60  
CCTTCCTTAT TTATTCCTGC TGCCCCAGAA CATAGGTCTT GGAATAAAAT GGCTGGTTCT 120  
TTTGTTTTCC AAA 133

SEQ ID NO:1898

LENGTH:130

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02151

SEQUENCE DESCRIPTION:

GATCTAAGTT GCATCTTTAA TCCTGGTGGT CTTGCCTTCT GATTTTAAAT TTGTATCCTT 60  
TTCTATTAAG ATATATTTGT CATTTTCTCT TGAATATGTA TTAAATATC CCAAGCAATC 120  
CAGTAACAAA 130

SEQ ID NO:1899

LENGTH:247

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02152

SEQUENCE DESCRIPTION:

GATCGAGGAG ATGCCCTCTG AACGCCTGTC CCGGAGCACC CGCCAGCGGG CAGCCTGTGC 60  
CCAGCTCAAC GACTTCCTCC AGGAGTATGG CACTCAGGGG TGCCAGGTCTN TNAGGGCTGC 120

CCTCCCACNN CCGCTGGGAG GAACCTNAAC CTGGGAACCA TGAAGCTGGA AGCACTGCTG 180  
 TGTCCGCTTT NATGAACACA GCCTGGGACC AGGGCATATN AAAGGCTTTT GGCAGCAAAG 240  
 TGTCAAA 247

SEQ ID NO:1900

LENGTH:132

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02153

SEQUENCE DESCRIPTION:

GATCTTCCTG CTACCCTCTT GGATTCTAAG TGGTTCCAAG CTTAACTTGA GACCTTCCCT 60  
 TCAAATCTAA AATTGGCAAA AAGTCACTTA AAATAGTGGA CTTCTGTAAT AAAGGTTGCC 120  
 TAAAATAACA AA 132

SEQ ID NO:1901

LENGTH:128

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02154

SEQUENCE DESCRIPTION:

GATCTACAGG TTNCAATTCA ACCTGTTTCT AGGTTTTTTT GTAAATTTAG TTTTGATTAA 60  
 GCATTATAAG CATTTGAGTC TATAAACTTT ATAGTAGCAT CTTTCAGAAT AAACATTTTT 120  
 AATTGAAA 128

SEQ ID NO:1902

LENGTH:132

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02155

SEQUENCE DESCRIPTION:

GATCCATGAG TTTGCCCTGG TTTCACTGGC CCAAGTGGTT TGTGCTAACC ACGTCTGTCT 60  
 TCACAGCTCT GTGTTGCCAT GTGTGCTGAA CAAAAAATAA AAATTATTAT TGATTTTATA 120  
 TTTCAGGGGA AA 132

SEQ ID NO:1903

LENGTH:128

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02156

SEQUENCE DESCRIPTION:

GATCCAAGAC AGAATAATGA ATGGACTCAA ACTGCCTTGG CTTCAGGGGA GTCCCGTCAG 60  
 GNCGTGAGG ACTTTTCGAC CAATTCAACC CTTTGCCCCA CCTTTATTAA AATCTTAAAC 120  
 AACGGAAA 128

SEQ ID NO:1904



LENGTH:126

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02157

SEQUENCE DESCRIPTION:

GATCCACAGG GGTGGTGTCA AATGCTATTG AAATTGTGTT GAATTGTATG CTTTTTCACT 60  
TTTGATAAAT AAACATGTAA AAATGTTTCA AAAAAATAAT AAAATAAATA AATATGAAAC 120  
CTTAAA 126

SEQ ID NO:1905

LENGTH:122

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02158

SEQUENCE DESCRIPTION:

GATCTACAGA TGAATATTTA ACTCAATAGA AAAATTATTT TAGAACACAT TGTATTGGTA 60  
TTACAACCAG ATTATATTCT TGACGTTGAC TTCATTAAAA TTATCTACAA TTCCTAATA 120  
AA 122

SEQ ID NO:1906

LENGTH:121

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02159

SEQUENCE DESCRIPTION:

GATCTCATGG ATACAAACAG GTGACCTTGC CAATTGGTGC TTTTGTGTG TTTAAGAAAA 60  
GAACAGTAGT AACCTTGCTC CCTGGNTACC AATAAAAAAT CTATTATTTT TTAAAAGAA 120  
A 121

SEQ ID NO:1907

LENGTH:119

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02160

SEQUENCE DESCRIPTION:

GATCTGACCC CTGTCAGATG NAAATGATTC ACAGCTCTGG CAGTTCCCAA GTCTGGGGAG 60  
GGGTATAGGT TTGAAAGGCT GTTGAAAGA GGAATGTTTA ATAAAGGCTT TGATTAAA 119

SEQ ID NO:1908

LENGTH:121

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02161

SEQUENCE DESCRIPTION:

GATCCCAGCT GGCCCTATG TTGTGTTCTG NGAAGGAGG CTTTGCTGTG AACTGCAGT 60

TTTCATACGA ACCATCTTTC CTAGTGCATG AGAAATAAAG ATTATTTAAG TAATGAGGAA 120  
A 121

SEQ ID NO:1909

LENGTH:116

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02162

SEQUENCE DESCRIPTION:

GATCTCACTT TTCAGGAAAC TAAAAATTA CCCATTATTG GGAAGCTTAA ATGAATTGAA 60  
GCTATGCAAG TCTTTTATAT TATTAAATAT TAAAAAGTAA ACCTGTACTA ATCAAA 116

SEQ ID NO:1910

LENGTH:116

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02163

SEQUENCE DESCRIPTION:

GATCGATATG CTCATAAAG TGCTCAATTA TATTTNCTGT ATTTTGTATG NTGTATTTTC 60  
CAAGACGTAT ATTATTTTAC TATTAAAGAA AAAAATCATT TTTTTTCCC GAGAAA 116

SEQ ID NO:1911

LENGTH:124

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02164

SEQUENCE DESCRIPTION:

GATCCGGGCA TGGGAGACCC CACTTTAGAA AGGGTCGTCA CTCCTTAAT CCTCTACTCA 60  
ACAATGTACT CTTTACTTT TATATTAAAA AAAATAAAAT AAATATGTGC CTAAACCTC 120  
CAAA 124

SEQ ID NO:1912

LENGTH:115

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02165

SEQUENCE DESCRIPTION:

GATCCACTTC TACTTAATGA GTAGTAAATA TATTCNTTT TCCTTATGAT TTTCTTACTA 60  
TTNCTTTAG CTTGCTTTAT TATAAGANTA TAGCATATAA TATAAATAAA ATAAA 115

SEQ ID NO:1913

LENGTH:112

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02166

## SEQUENCE DESCRIPTION:

GATCCAGAAA TTGTGAACAA TGTTCGATTT AGTAGCGTGA CTTGCCCTTC CCTTTAAAAA 60  
 CATCTTTTAC AAATCTGTCT TGAATAAAG TCTATTTTCT GCCTTTTGGA AA 112

SEQ ID NO:1914

LENGTH:112

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02167

## SEQUENCE DESCRIPTION:

GATCCTAATT GCCTAGAAAT ATCTTTCTCT TACCTGTTAT TTATCAATT TNCCCAGTAT 60  
 TTTTATACGG AAAAAATTGT ATTGAAAACA CTTAGTATGC AGTTGANNNN GN 112

SEQ ID NO:1915

LENGTH:112

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02168

## SEQUENCE DESCRIPTION:

GATCAACCGT GAAGCGTAAC AAATTCTGTA TTTAGTTTTT TTTTCTGTTG TGGTGGTTTT 60  
 TGTTTTGTTT TTTGTTTTTG TAAGATTCTA AATAAATNAA ATACGAGTCA AA 112

SEQ ID NO:1916

LENGTH:112

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02169

## SEQUENCE DESCRIPTION:

GATCAAGACT NCAGTTTGGG AATGCATGGA CACCGGATTT GTTCTTATT CCTTCACTTT 60  
 TGGGGAAAAT CTCNCCNTNT TAAAAAGTG ATAAATTTGG TGTTAGGTCA AA 112

SEQ ID NO:1917

LENGTH:112

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02170

## SEQUENCE DESCRIPTION:

GATCAACGCG ACTGTATTTT GAAACATTCC AGGAAGGTTA CTTCTGTCA AACTTGCCTG 60  
 GCAGTGTGTTG TTCAAANCTT GTATTTAATA AATGANCATC TGACTTTACA AA 112

SEQ ID NO:1918

LENGTH:162

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02171

## SEQUENCE DESCRIPTION:

GATCTATCTT AAGAAGTGAC CAGGAAAGAG GTTCATTGAA ATAATCATGC ATGAAGCGCC 60  
AAAGATGCAC CATGTAGAAT TTTCACTTTG TACTGGCAGG CTCGTTTAC CTGATTCTAG 120  
AATATTTAAG AATCTAAAAA TAAAGGGCAA CTCTGACTTA AA 162

SEQ ID NO:1919

LENGTH:111

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02172

## SEQUENCE DESCRIPTION:

GATCAGGGAA CTAAGCATT TGTGAATTCA CCAGCAAGAT GTACAGNACG CCTGTNTTTA 60  
CATTGTTTTT ATGGAAGTAG CAGAATAAAN CATCTATTTT AAAAATGCAA A 111

SEQ ID NO:1920

LENGTH:275

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02173

## SEQUENCE DESCRIPTION:

GATCTGGGAG GAAGCCGCCT ACTCCAACCC CAGCCTACCT NTGGTGCACA NATCCGTCCC 60  
ATAGCAAAGC CCCTGCACAG ACTCCAGCCG AGCCCACACC TGGNTATNAG GTGGGCCAGC 120  
GGAAGCGCCT CATCTCCTCG GTGGAGGACT TCACCGAGTT TNTNTGAGGC CGGGGCCCTC 180  
CCTCCTGCAC TGGCCTTGGA CGGTATTGCC TGTCAGTGAA ATAAATAAAG TCCTGACCCT 240  
AGTGACACAGA CATAGAGGCA CAGATTGCAG TCAAA 275

SEQ ID NO:1921

LENGTH:114

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02174

## SEQUENCE DESCRIPTION:

GATCAGGACA GAGACTTGGG GGCCATCCTG CCCCTCCAAC CCGGACATGT GTACCTCAGC 60  
TTTTTCCTC ACGTTGCATC AATAAAGCTT CTGTGTTTGG AACAGNTAAA CAAA 114

SEQ ID NO:1922

LENGTH:108

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02175

## SEQUENCE DESCRIPTION:

GATCCCAAGC NTCCCGTCCC TTGGAAAGTN CAGCCAGAAT CTNCGTCCTG ACCCCCGACA 60  
GCCCAGCCTA GCCCACTTGT CATCCATAAA GCAAGCTCAA CCTTGAAA 108

SEQ ID NO:1923

LENGTH:272

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02176

SEQUENCE DESCRIPTION:

GATCCCCCAG GTTCAGACTG AGCTCCCCCT TCCCAGTAGC TCTTGCATCC TCCTCCCAAC 60  
TCTAGCCTGA NTNCTTNCA ATAAAAATA CAATTCAAGT TGCTTCTCAT GGATGGCACT 120  
GCTTTCCTGA GGA CTCAAGG TGCCAAGATG GAGGGGCTGA CTCAGTCCAG CCAACNTTTA 180  
ATGAGNACCT ANNNGGTGTA TGGAGCTCTA ACCCATGGGT CCATGGGAAT AAAGCAGTGA 240  
ATAGTAACAA TAAATAATTG TAACAGCANA AA 272

SEQ ID NO:1924

LENGTH:109

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02177

SEQUENCE DESCRIPTION:

GATCTGACGT TTTCTACGTA GCTTTTGTAT TTTTTTTTTT TAATTNAAG GAACACTTAT 60  
GAAGCCCTGC CATNCCCCTC CCGNGTCTAA TAAAACGTAT AATCACAAA 109

SEQ ID NO:1925

LENGTH:104

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02178

SEQUENCE DESCRIPTION:

GATCAACTTG TGCTTGCCAG AGGACGCCAA TGAAGTTTGA AACACCAACA ATCAGAGATT 60  
TTGTTTCTGT TCCTCATTAA ATCATGAGCT TTTGTGCCGA GAAA 104

SEQ ID NO:1926

LENGTH:104

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02179

SEQUENCE DESCRIPTION:

GATCGTGTGT GTAGGTGGTG TTGTGTGGTT TTCCTTTGTG AAGGAGAGAG GGAAACTATN 60  
TG TAGCTTGT TTTATAAAAA ATAAAAATG GGTAAATCTT GAAA 104

SEQ ID NO:1927

LENGTH:103

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02180

SEQUENCE DESCRIPTION:

GATCCTCCCA CTTCCACCTC CCAAGTAGCT GTGGCTACAG GTGTGTGCCA CCATGTCCAG 60

CTGATTTTNG TATTTTNAGT AGGGACAGTA TTTCTCCATG AAA

103

SEQ ID NO:1928

LENGTH:106

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02181

SEQUENCE DESCRIPTION:

GATCTAAATC TCATTTTATG CTGTATTTTA TATCTNAGTT GTNTTTGAAA ACGTTTGTAT 60  
TTTTGGAAAC ACATCAAAAT AAATAATGGC GTTNTTTGTA TGCAAA 106

SEQ ID NO:1929

LENGTH:272

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02182

SEQUENCE DESCRIPTION:

GATCTGGACG AATGATACCA AACGTTTCTT TCTAAATTG TATTTTATAA CTCTGGCCTA 60  
TGATTGTNTT GTGTCTTGCA TTAAAAAAA AAATTTGAGA GTGGTAGAAT TACTTCTGTT 120  
ATCTGAAATA CCTGAGATGC ACTTTAACT GTTGAAATGT AAGCNCTGAG GGCAGGGNCC 180  
GTATCTNATT TACTGTTAGT ATCCGTTGCA TCTAGTGTGG TGCACCTGGC ACACAGTAGG 240  
CACTCAATAA ATATGTATTG ATTAAAAACA AA 272

SEQ ID NO:1930

LENGTH:171

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02183

SEQUENCE DESCRIPTION:

GATCTACAGC TCCTGGATAA TTGCTTGATT CTCGCCAGAG ACTGTCAATA TTTNATTCAT 60  
TGCCATTACC AATAAATCAT TGCTTTTGTT NAGATGGTAT CACTAGTGTT TCCATTGTAA 120  
TCTTGACACA TGCAATTGTA AATAAAGTC ACCACTTTTG CCAAGCTTAA A 171

SEQ ID NO:1931

LENGTH:99

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02184

SEQUENCE DESCRIPTION:

GATCATACCA CTGCACTCTA GTCTGGGTGA CAGAGCGAGA CCCTGTCTTG AAAAAAATAA 60  
ATAAAAAATAA ATAAAAATAA AACTGGCACT ACGTTTAAA 99

SEQ ID NO:1932

LENGTH:99

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02185

SEQUENCE DESCRIPTION:

GATCTGTGTC TTAAACTTA CTGGAATGGA AATCTATGAA TTATTGCAAA TTGTAATGCT 60  
GGAAACAAAA AATAATCCT TGGTTAAAGG GTTGTAAA 99

SEQ ID NO:1933

LENGTH:99

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02186

SEQUENCE DESCRIPTION:

GATCTGACA CTCTANCACT CGACTCTGCT GCTCATGGGA AGAACAGAAT TNCTCCTGCA 60  
TGCAACTAAT TCAATAAAC TGTCTGTGA GCTGATAA 99

SEQ ID NO:1934

LENGTH:90

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02187

SEQUENCE DESCRIPTION:

GATCTTGACT TATATTCTGT ACCACATACA CTTCTGTGGA CTTTATGAT TTGTGGGTAG 60  
ACTTAATAAA GCATGTATAA AAGTGGCAAA 90

SEQ ID NO:1935

LENGTH:91

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02188

SEQUENCE DESCRIPTION:

GATCAGGNTG CGGATAGACT TGTAAAGGTG TTTGCTGCAT ACAGTGTAAG CATTGTGACC 60  
GCCAATAANC TTCAATGGT TCTACTGNAA A 91

SEQ ID NO:1936

LENGTH:91

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02189

SEQUENCE DESCRIPTION:

GATCTTTCGT NTTTCTAAGC GACTCTACTT TCATTGTTG CCAGCNTAGC TCGTTGCTGT 60  
TGCCCAATAA AGCTNGTGTA CGTCTGCAA A 91

SEQ ID NO:1937

LENGTH:86

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02191

SEQUENCE DESCRIPTION:

GATCTTACAT CTGCAGCTCT TTCTTCTTG AATTCCTAT CTGTATGTCT GCCTAATTAA 60  
AAAAATATAT ATTGTATTAT GCTAAA 86

SEQ ID NO:1938

LENGTH:86

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02192

SEQUENCE DESCRIPTION:

GATCATCAGT GTTCCTTTTT ACTTATAAAG TTGGATTCTT TTTTAGAATT TGTAATAAAT 60  
AAAAACTGCT GCTTACCAC TGTAAT 86

SEQ ID NO:1939

LENGTH:91

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02193

SEQUENCE DESCRIPTION:

GATCTACCCT GCCTGTACTA CTCTAGGGAG TATGCTGGAG GCAGAGGGCA AGGGAGGGGT 60  
GGTATTAAAC AAGTCAATTC TGTGTNGTAA A 91

SEQ ID NO:1940

LENGTH:84

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02194

SEQUENCE DESCRIPTION:

GATCATGAGT GACCCAGCTG TCTCAGTTG TTTATTCTGC GTCCCTTCT CCAATAAAAC 60  
AAGCCAGTTG GCGTNGTTA TAAA 84

SEQ ID NO:1941

LENGTH:79

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02195

SEQUENCE DESCRIPTION:

GATCCCCATG CCTAGCAGAG TGCTGGCACT TAGTAGGTCC TCAATAAATA TTTATTAAAT 60  
GATGAGATGA TGGAGCAAA 79

SEQ ID NO:1942

LENGTH:78

TYPE:nucleic acid



TOPOLOGY:linear

CLONE:HUMGS02196

SEQUENCE DESCRIPTION:

GATCCAATCC CATAGACAGC TCTGGGCCTC TTGCATTGA GTTTTTTAGA ATTAAACTGC 60  
AGTATTTTGG AAAGCAAA 78

SEQ ID NO:1943

LENGTH:77

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02197

SEQUENCE DESCRIPTION:

GATCCACTAA GGAAATGTTT TAACAGCTAG AGACCACTGC TTGCCTGAAA GGGCGTTCCT 60  
AAATTTGGTG CAGCAAA 77

SEQ ID NO:1944

LENGTH:76

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02198

SEQUENCE DESCRIPTION:

GATCCACTTC AAGAATTGCT TGCTTTCAGG AAGAGAGATG TGTTTCAACA AGCCAACTAA 60  
AATATATTGC TGCAAA 76

SEQ ID NO:1945

LENGTH:76

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02199

SEQUENCE DESCRIPTION:

GATCGACTTT GTGTCTCTGT TGTCTAAAAT AGGTTTTCCC TGTCTGGAC ATTCATATA 60  
AATGGAATCA CACAAA 76

SEQ ID NO:1946

LENGTH:75

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02200

SEQUENCE DESCRIPTION:

GATCATAGAT TTCTGATTTT ATGTAAAATT TTGCCTAATA CATTAAAGCA GTCACCTTTC 60  
CTGTGCTGTT TCAAA 75

SEQ ID NO:1947

LENGTH:74

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02202

SEQUENCE DESCRIPTION:

GATCTGTCAA AGAAACTTC CAAAAAGATT TATTAATTAA ACCAGACTCT GTTGCAATAA 60  
AAATCCTACA GAAA 74

SEQ ID NO:1948

LENGTH:73

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02203

SEQUENCE DESCRIPTION:

GATCCACTTT AGCAAACCCT GCTGCAGAGG ACTGTAAAAA CAAATAACTA AAAATAAACT 60  
TAGAAAATAC AAA 73

SEQ ID NO:1949

LENGTH:73

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02204

SEQUENCE DESCRIPTION:

GATCGTAATG TTTATCATGT TACTTCCCA CCCCTACATT TTTGAAATA AAATAAGGAA 60  
TTTTATTCTC AAA 73

SEQ ID NO:1950

LENGTH:72

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02205

SEQUENCE DESCRIPTION:

GATCNC TGCA ACTAAGNTTA AAGCAGTGTG ACTGTGTTGC TNAATATCA AGTATTGTTT 60  
ATAACCACCA AA 72

SEQ ID NO:1951

LENGTH:66

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02206

SEQUENCE DESCRIPTION:

GATCTCAGCT ATTAAGATGC AAGTCTGCCA ATGCTCCTGG CCAAATAAAC CTCTTCCTC 60  
TTTAAA 66

SEQ ID NO:1952

LENGTH:65

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02207

SEQUENCE DESCRIPTION:

GATCCTCTTG TACTGGGAGA GGTGCCTTTT GTATCCCCAA TTAAAGGTAG AAAACCACCC 60  
TGAAA 65

SEQ ID NO:1953.

LENGTH:62

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02208

SEQUENCE DESCRIPTION:

GATCTCGAAG AAAAAAGGGG GAGACCAAAG AATAAAAGAA GGGTTTCCCC ACTAAAATGA 60  
AA 62

SEQ ID NO:1954

LENGTH:62

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02209

SEQUENCE DESCRIPTION:

GATCCAGCTG TNCTTAAGAG CCAGTAATGT CTTAATAAAC ATGTGGCAGC TTNNTTTGA 60  
AA 62

SEQ ID NO:1955

LENGTH:61

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02210

SEQUENCE DESCRIPTION:

GATCTCACAT TTCACCCAG GCTCAACTGA GGATGTGGCT TATTAAACAC GGAAGTGCAA 60  
A 61

SEQ ID NO:1956

LENGTH:59

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02211

SEQUENCE DESCRIPTION:

GATCAGCCAT GTNTATCTTT TAAAAAATA AACAGGTTGC TTTATTTCTT AGCTTCAAA 59

SEQ ID NO:1957

LENGTH:59

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02212

SEQUENCE DESCRIPTION:

GATCAGATGA GATTTAATGA AGACCCAGTG TAAAGAATAA ATGANTCTTA CTCCTTAA 59

SEQ ID NO:1958

LENGTH:57

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02213

SEQUENCE DESCRIPTION:

GATCTACACC TGGACTGCCC AGGTCTATAA GCCAATAAAG CCCCTGTTTA CTGAAA 57

SEQ ID NO:1959

LENGTH:56

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02214

SEQUENCE DESCRIPTION:

GATCGAAGAA AAAGGGGNGN CAAAGAATAA AAGAAGGGTT TCCCACTAAA ATGAAA 56

SEQ ID NO:1960

LENGTH:111

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02215

SEQUENCE DESCRIPTION:

GATCAGAAAT GTTGANTGTG CATTGAGTAT TAAAAAATTA GATGTATATT ATNCATTGTC 60  
CTTTACTCAT GAGTACCTTA TAATANTANT ANTGTATTCT TTGTTAACAA A 111

SEQ ID NO:1961

LENGTH:167

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02216

SEQUENCE DESCRIPTION:

GATCTATTCC CCATCCAAG GCAAGCATGA ATAAAATTAG GTTAAACGTA GCATGTGGCA 60  
TCGCAGTCTC TTAGAATTTG TTTCATCTAT TTNATTTTAT TGAATACTGT CTGTATCTTT 120  
GGTTATCCTG TTTGAAGAAA AAGGACAAAT AAAACATGGC CAGCAAA 167

SEQ ID NO:1962

LENGTH:516

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02237

SEQUENCE DESCRIPTION:

GATCCTCATT CTCACCCATT TGGCTAATCC AGGAATATTG TTATCCCTNA NCCATTATAT 60  
 TNAAGTTGAG AAATGTGACA GAGGCATTGA GAGTATGGAC TTTCCTTTCC TTTNCTTTT 120  
 NCTTTTTTCC TTTTGTAGAT GGAGTCACAC TCTCCAGGCT GGAGTNCAGT GGCACAATCT 180  
 CGGCTCACTG CAATTNCCGT CTCCCAAGTT CAAGCGATTC TCCTGCTTTA GACTATGGAT 240  
 TTCTTTAAGG AATACTGGTT TGCAGTTTTG TTTTCTGGAC TATATCAGCA GATGGTAGAC 300  
 AGTGTATTATG TAGATGTGTT GTTGTTTTGA TCATTGGGAT TTAACTTGG NCCGAGTNAA 360  
 ATAATCAGGT TTTTGTCACT CACACTCTCC CCCAGTTTTT GGAATAACT TTGGAAGGTA 420  
 AGGTTTCANTN CCCTAAGGCC GGTGGGGTTN CTGTTGGACC TATGGGGGGN CCACAACGTN 480  
 ACTATTTAAT TCCNCCCCAC TGTAAGGGGC AAAGGN 516

SEQ ID NO:1963

LENGTH:483

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02238

SEQUENCE DESCRIPTION:

GATCTTTCCA GATGACTTGT CCAAGGTCAC ACAGGAGTCA GATGGCCTTT CCACTACCCC 60  
 ACAACACAGA TGCATAGTTA CTCTGTGGGC TAATACAATT CAGAATTCAG AGCTCTGCCC 120  
 ATGGTCACCG GTGGAATCCA CCAGCCATCT CCCTGACCTT GCTCTCCTCT GTTCTCCTCG 180  
 TCTCCAGGGT CCCATGATTC AGGGCGAGCT GGCTTCAGGA TGTGGGCAAG AGGGGTTTTA 240  
 GATGGAAGGG TTTTCTCCA GGACAGAATG TTAAGCCAAG CCTGGACTTA ATTGTTCCAA 300  
 GATGTCGTGA GAATTGGTGG ACAATTTTTT TTTAATGATT AGCAAAGGAC AAGGCTTTTG 360  
 GTGGTCATTA GTATTGTTCA TCAAATATTC CAGTTCTCCA CAATTCTGGG GTACCATGGT 420  
 ANGGATGAAC CTTCCCTGTC TTTTCAGGGT TAAGTTTAGC TCTNGTGATG TGCTTTTGTG 480  
 AAA 483

SEQ ID NO:1964

LENGTH:452

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02239

SEQUENCE DESCRIPTION:

GATCGCTGGA GCTGTGGTCG CTGCTGTGAT GTGGAGGAGG AAGAGCTCAG ATAGAAAAGG 60  
 AGGGAGCTAC TCTCAGGCTG CAAGCAGTGA CAGTGCCAG GGCTCTGATA TGTCTCTCAC 120  
 AGCTTGTAAG GTGTGAGACA GCTGCCTTGT GTGGGACTGA GAGGCAAGAT TTGTTCTGTC 180  
 CCTTCCCTTT GTGACTTGAA GAACCCTGAC TTTGTTTCTG CAAAGGCACC TGCATGTGTC 240  
 TGTGTTCTTG TAGGCATAAT GTGAGGAGGT GGGGNGACCA CCCCACCCNN ATGTCCACCA 300  
 TGACCCTCTT CCCACGNTGA CCTGTGCTCC CTCCCCAATC ATCTNTCTCG TTCCAGAGAG 360  
 GTGGGGCTGA GGTGTCTCCA TCTCTGCCTC AACTTCATGG TGAAGTACTG TGTAAGTNTT 420  
 TCCTGNNTAT TAAAATAAGA CCTGAGTTTA AA 452

SEQ ID NO:1965

LENGTH:433

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02240

## SEQUENCE DESCRIPTION:

GATCAGACAC CAGAGGGTTG GGCATTCTTG CAATACCTTA ACAGTGCTGA AATCTGCAGC 60  
 ATGGTACTAA GGAAGTTAAA GTTTGAATGT AACCACCTTA TTTAAAAGGT TTTTCTCTT 120  
 AATTAAATG AAATGGTGGT TGAAGTGAAC ATGATTTTGT TGACCATGTT CGTGAATTAC 180  
 AGATGCAACA TGCATTGGTA GAATCGTGTG ATGGTCTTTT GTGATACTTA ATTTTACAT 240  
 ATCCAGTCT CTGTATGTAT CTGCATAGAC AAAGAAAAA CAACTCCTG CTTGCTTTT 300  
 ATTGAANGG TTTCCAGGAC TGGTGTCTG CTCCTGAGCT CTGTTTAAAG TATGTGTATC 360  
 CTTGCTTGT ATTTTGAAT TAAAAAATA AGGAAAAGGA NGCCTTTATT TGTGGNGCA 420  
 TGTGGCATT GTN 433

SEQ ID NO:1966

LENGTH:424

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02241

## SEQUENCE DESCRIPTION:

GATCTGCAAA GAAAGCTTTT CTTNCGTCGC TGCCTCAGNC TCCTCCCTAT GCCTCTNGCA 60  
 CCTGCGCAGA AGTGCTGGCT GTGCTGANGT CACCATCATC TTCCTCTCCC CCAGCCTCCC 120  
 AGGCTGGATG GCATGGACTG TTTGCTGACC TCTGTTCTCT TAGGGCATGG GAGGTGGGAG 180  
 GATATCAAA TCTNTAGCCC TTTCCTCCTA TTCTCCCAAG NAGAGAGNTT CCCATTTCTC 240  
 CTCGGCCATT GTACCTAGCT CTTGTCCCTA GCTGCATTTC AGTGGACCAT GGATAGAGGG 300  
 ACTGAGNGTT AGACGGGGAA GACTGGCAGN GAGGCACGCA GGTACTGTGA AAATCCTNNC 360  
 CTTTGACCTC CNCCAGTGGG AGAGGGGNGT TGGGGTTTTC AATGTGAGAA CAGNAACAAA 420  
 TAAN 424

SEQ ID NO:1967

LENGTH:418

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02242

## SEQUENCE DESCRIPTION:

GATCNCCTGC TCTCCAAGCA TGGCATCTAT GTGCAGGCCA TCAACTACCC AACTGTCCCC 60  
 CGGGGTGAAG AGCTCCTGCG CTTGGCACCC TCCCCCACC ACAGCCCTCA GATGATGGAA 120  
 GATTTTGTGG AGANGTGCT GCTGGCTTGG ACTGCGGTGG GGCTGCCCT CCAGGATGTG 180  
 TCTGTGGCTG CCTGCAATTT CTGTCGCCGT CCTGTACACT TTGAGCTCAT GAGTGAGTNG 240  
 GAACGTTTCT ACTTCGGGAA CATGGGGCCC CAGTATGTCA CCACCTATGC CTGAGAAGCC 300  
 AGNTGCCTAG GATTACACC CCACCTGCGN TTAAGTGGG TCCAGGCCTA CTCCTGTCTT 360  
 CTGCTTTGTT GTGTGCCTCT AGCTGAATTG AGCCTAAAAA TAAAGNACAA ACCACAAA 418

SEQ ID NO:1968

LENGTH:413

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02243

## SEQUENCE DESCRIPTION:

GATCATTGAA TAAACGGGT GTAGAGTACA GGAATGGGGC AGACGCGATT CAGGTGAACA 60  
 GCACANGNAG AATATGAGGT GGTTCCTAGG AGCAACACTT TCGACCTCCA GTTCTCCNTG 120  
 ATGACAGTAG CTGTCTCCNN GNGAAAAATC CTCACTTATT AACTCTCTTT TCTTGCATCT 180  
 CATTTTTATA GAGCTACTCA TCCTTATTG GAAAAACCAA CAACAAAAA GGCTTTTGA 240  
 AAATGGTTGT AAATCTGACT TCTTTGCAAG TAACTATGTA TATTGTAAAT AGGATATAAA 300  
 AAGGCCTTTT TTCTAAATAA GGCCTTAACT GCCTGTAACA TGAACTTCA AACTAAACCA 360  
 CTTAACTCAN TGNACTACCT TATGGGTTG TCTGACATCC CTCAACTTAC CAN 413

SEQ ID NO:1969

LENGTH:412

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02244

## SEQUENCE DESCRIPTION:

GATCCCACCG AGAAGAACCA TGGGTGGACC CGAACTCCCC GGTGCTCTNA GAGGACCCAN 60  
 NNCTTTGTGC CTGGGCAAAA AAGCACAAGC GAACCCAGC CCTGATTGCC CTGCGCTACC 120  
 AGCTACAGCG TGGGGTTGTG GTCCTGGCCA AGAGCTACAA TNAGCAGCGC ATCAGACAGA 180  
 ACGTGCAGGT GTTTGAATTC CAGTTGACTT CAGAGGAGAT GAAAGCCATA GATGGCCTAA 240  
 ACAGAAATGT GCGATATTG ACCCTTGNTA TTTTGTCTGG NCCCCCTAAT TATCCATTTT 300  
 CTGATGAATA TTAACATGGA GGGCATTGCA TGNGGGTCTA CCAGAAGNNC NTNGGGTNTT 360  
 GGANTGGTNG CANAAGNGGG TNGGTTCTTA TGGCTGGGGG NACTTGGGCA AN 412

SEQ ID NO:1970

LENGTH:406

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02245

## SEQUENCE DESCRIPTION:

GATCCAAAGT TCATACATTT TATGTACAAG ATACATTAGA CTTACAATAN AGTCTAATTA 60  
 TTAGACTTTT ATGTCAGTGG ATTGTGCTTG CAGAAATACA GAAGTAACAT ACTGACCCTA 120  
 GGTGAGGAGT TTCTTACATG GTTAACTGGA TTGACCCAAT TGGAGTAAAA GATTTTGTCT 180  
 GTTACCTCGA TGCTCCTGCA GTTGTTACCT CAGCATGCCA CTGTAGTCCT TGA CTCTCAC 240  
 ATTAAACTA ACTTTGGCTA GGTACTGGTG GCTCACACCT GTANGTAATC CCAGTACTTT 300  
 AGGAGGCTGA GACTGGAGGA TTA CTGAGT CCAGGAGTTG GAGACCAGCC TGGCCAATAT 360  
 AGACTGTCCC TACAAAGGAA AATAAANTTT GTTTCATCTT TCNAAA 406

SEQ ID NO:1971

LENGTH:401

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02246

## SEQUENCE DESCRIPTION:

GATCAAATAT GGCATCAACA ATATCCGGGA GCTGGTGGGC CACAAGGTGA ACCTGCAGAT 60  
 GGTGTATGAC AGTCCCCTGT NCCGCCTGGA TGCCGAGCCG AGGCCCCCTC CCACACAGGA 120

GGCTGCGTGA CATGGGCCAC TCTAGGACAG GTCATCCTCC CCGAGTCCCT GCTGCTGCGC 180  
 TCCTTTGCAT CCCTGGCCAG TNACCTTGTA TTTATGAGGC CTCTGTNAGG CAGCCCCCAC 240  
 CTTCTCTTTT CCCACCTGTC CCAGGACCAG AATCCCAGGG ACAGAGGACT GGGTAGCAGG 300  
 TTCCTTCTGT TGTCTGTGT GGTGTGTCTA CTGTGAGGGT GGGCCCTGAG GAGACCTGTG 360  
 GGCCANCTAT TGTCTAATAA AGTGGGGCAG TTGCCCCCAA A 401

SEQ ID NO:1972

LENGTH:384

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02247

SEQUENCE DESCRIPTION:

GATCTTTNAT GTTGTNATT TTGGAGAGAA GCACAAGGAG TATTCTCTTT CTAGGGAAAG 60  
 TTGTGAACCC AACGGAAGCG TAGTTGGGAA AAAGGCCATT GGCTAATTNC ACGTGTGTAT 120  
 TGCAATGGGA AATAAATAAA TAATATAGCC TGGTGTGATT GATGTGAGCT TGGNCTTGCA 180  
 TTCCCTTATG ATGGGATGAA GATTGACCCC TGGCTGACCT TTNTTGGCTG TGGAAGAGGN 240  
 CAATCCTATG GCAGAGCATT CAGAATGTCA ATGCGTAATT CATTATTATC CAAAGCATAG 300  
 GAAGGCTCTA TGTNTGTATA TNNCCCTNTG TCGGAATACC CCCTTANCTC ATTTTCCNCT 360  
 TAATAAATTT CACTGGGTTG NAAA 384

SEQ ID NO:1973

LENGTH:383

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02248

SEQUENCE DESCRIPTION:

GATCCTGCTT CTCCCCTGGG GTCTTCTTGG TTCCCTGAAG CCCCTCTTCC GGAGTCCCTG 60  
 CCCTCTATCG GCTCTGCCTC CTGCTTCTTT TCTGTATTGC CATGATTTT GCTAAGGATA 120  
 AAGGACAACT TCATTGGCTT CTTTGGGAAA CTTGCAATCT CCCCCAACAG GCCCCTCTGA 180  
 GATTTCTCCT TTTGCCACCT TCGATATTTT CTCCAGTTTC CTTGATTCCT TTGATACGTC 240  
 CCCATTCAAG CCACTCTGGC CTTCCATCCA ACCTGCCAGA ACTTTTTCCT CTTGAGCACT 300  
 TCAGTCACTT AAACATTAGG GCTCCCTGCC CTAAAGGGAC TCAAAATCCT GCAAAANCAA 360  
 CCACNNAAGG ATAAAAAAT AAA 383

SEQ ID NO:1974

LENGTH:375

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02249

SEQUENCE DESCRIPTION:

GATCAACAGG AAGAACATGG TGGTCTCCTT TGGAGATGGG GTTACCTTCG TGGTCGTCCT 60  
 ACACCAAGTG TGGAAGAAAC ATCCTGTCCA CCGTGACTTT CTAGGCTTCT ACGTGGTGGA 120  
 CAGTCACCGG ATGTCAGCAC AGACGCATGG GCTGNTGGGG CAATTCTTCC AACCCTTTGA 180  
 CTTTAAAGTG TCTGACATCN GGCCAGGCTC TNACCCACA AAGCCAGATG CCACATTGGT 240  
 GGTGAAGAAC CATCANGTG ATTNTNACCA GGGGCTCCCN GAAAGANTAC AGNAAAGGNA 300



2153480

TGCCANGCAT CGGCACGAAN GGTGTCTTC TTGGTTCGNN CACANCAACG GGGAATGTTG 360  
TTGNTTGANT GGTGN 375

SEQ ID NO:1975

LENGTH:370

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02250

SEQUENCE DESCRIPTION:

GATCTATGTG CACACACCCN CATCACATGG AATGGGCTGG TCTAGGCTGT GGCCTGNCAC 60  
CTTCCTTAGA GTGAATAGGG CGGACACTCC TCTCTTTTCC TGTAGCGTGT GGACCGGTCC 120  
ACGCAATTCT TTATCCTGTG AACTCATCTG AGTGGGAGGT GGTGGACACT GGGGTTTCCT 180  
TCCCTCTCTC CGTAGCATCC GTTGGTCTTT CTCTCCATCT CTGTTGGTTT GTCTGTCTCT 240  
GTCTTCCTCC CAATCCCTAG GGGAAGGGGG CATTGGGCTA GGGGGTGCCC CTGTGAGCCT 300  
NGACCTTGCC CCCTCGTCCN TCTCCCCAGT GTTCCAGGA CCCCCAATAA ACCTTGTCCT 360  
GTCAGTCAAA 370

SEQ ID NO:1976

LENGTH:367

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02252

SEQUENCE DESCRIPTION:

GATCGATACA GGGGAGGGGG GAGGTGAAA CAAACAACAA AACTGTACAT TTTTTTAAA 60  
GTTTGTGAA AAGAATATTG TCTTATTCTA TAAACATTT CAAACCTAGT TAGAGATTG 120  
TAATCAAAAA ACATTGCGC AGAAAGCAGC ACTTAGGGCT GCCTGTTCTA TACCCTACAG 180  
TCAGACAGGA AAAGANCTGA AAATGGCACC CTTCTGACAT TCTGNGCAG CTGGNCTNGC 240  
AGCCANGTAA NGGNGAGTTT ATGAGGTGGT GTGGGGAGGG TGGGGAGGC NGCGTGGGG 300  
NTTCTCTCCA CAGCAGGTGG GNGCAGGCAA GNNTTGGNG GCCAGANGGN GNGCTTTGTN 360  
CNTGGGN 367

SEQ ID NO:1977

LENGTH:353

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02254

SEQUENCE DESCRIPTION:

GATCTCCAGC CTTACCGCGG CTCGAAATGG ACCCCAAGT CTCCTGCACC ACTGGTGTCT 60  
CCTGCGCCTG CACCGGCTCC TGCAAGTGCA AAGAGTGCAA ATGCACCTCC TGCAAGAAGA 120  
GCTGTGCTC CTGCTGCCCC GTGGGCTGTG CCAAGTGTGC CCACGGCTGT GTCTGCAAAG 180  
GGACGTTGGA GAACTGCAGC TGCTGTGCCT GATGTGGGAA CAGCTCTTCT CCCAGATGTT 240  
AATAGAACAA GCTGCACAAC CTGGATTTT TTTTCAATAC GATACTGAGC CATTTGNNGC 300  
ATTTCTTTT ATGTTAAATA TGTGAGTGAC AATAAAACAA TTTTGACTTG AAA 353

SEQ ID NO:1978

00790

LENGTH:351

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02255

SEQUENCE DESCRIPTION:

GATCTNACCT GAGGTGCTGG GTGAGAAATC TTAGGGACCA GATGGAAGAG GGCCTGTNTA 60  
TANNGACATT AGGAAGGAGG TTTGGGAAGG TTTGGGAGGG CAGCCTGACT TGTCTCCAGA 120  
GAAAGTTAGA ACTGGTTGAC TTAGCAACCA AGGGNCACTG GGTCAAAGAC GAGGANTCAG 180  
GACGTCGGTG CCTAGTGACT GAGCGCCANC CAGCCCATT CTNTACATTG CCATGGGCTA 240  
AACCCAGTGT GCTGTAAACT CTTGCAGTTC CTTGNGGTTA TGGGATTTTG NTATCTTGNC 300  
NGTGTTCCT CAANTAAAGG NNCTTGTTTG TAAAAATTGG GNAANAAGAA A 351

SEQ ID NO:1979

LENGTH:342

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02256

SEQUENCE DESCRIPTION:

GATCTGTTTC CTACAGACTT CAAATTTGAC ACCCCAGTGG ACAAACCTACC ACAGCTATAA 60  
ATTGAGGCAG CTAACGTCAA ATTCTTGAAT AAAAACTTT GCCTGTTGTA CATAGCCTAT 120  
ACAAAATGCT GGGTTGAGCC TTTCATGAGG AAAAAACAAA GACATGGTAC GCATTCCAGG 180  
GCTGAATACT ATTGCTTGGC ATNNNGTATG TATATACTAG TGAACATAT TTAATGATTT 240  
AAATTCTTA TCAAATTTCT TTTGTAGCAA TCTAGGAAAC TGTATTTTGG AAGATATTTG 300  
AAATTATGTA ATTCTTGAAT AAAACATTTT TCAAACTCA AA 342

SEQ ID NO:1980

LENGTH:340

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02257

SEQUENCE DESCRIPTION:

GATCAGCATG ACCAGCACTC GTTGGNGGAA AGGTGCTCNT NAGGAGACGT CTGGAGCTTA 60  
TGAGAAAACA GATACTGATG GGAAGTTTCT CTATCACAAA TCCAAATGGA ACATAACCAT 120  
GGCGTCCTAT GTGGTCCACA CCAACTATGA TGAGTATGCC ATTTTCCTGA CCAAGAAATT 180  
CAGCCGCCAT CATNGACCCA CCATTACTGC GGTGTCCCTG GTGATGGNGA TGAGGAGCTN 240  
CTGCGCTTCT CCAACTGACA ACTGGCCGNT CTGCANGTCA GAGGATGGNC AGTGTCTGTC 300  
CNGGGGTACT GTGGCAGNCA GCGACAAGCA ACCTGNGTCN 340

SEQ ID NO:1981

LENGTH:339

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02258

SEQUENCE DESCRIPTION:

GATCNTNTCG NCTCTGAAGA AGACATGGTG ACTGTGGTGG AGGACTGGAT GANNTTCTAC 60

ATCAACTATT ACAGGCAGCA GGTGACAGGG GAGCCCCAAG AGCGAGACAA GGCTCTGCAG 120  
 GAGCTTCGGC AAGAGCTGAA CACTCTGGCC AACCCCTTCC TGGCCAAGTA CAGGGACTTC 180  
 CTGAAGTCTC ATGAGCTCCC GAGTCACCCA CCGCCCTCCT CCTAGCTCAG GGACCCAGCC 240  
 CCTCCTCTCT GAGAACTCT GACCTTCATG TCCTTAGGCT GTGCTCCTGC CACTCTACCC 300  
 TGACACCTCA ATAAAGACCA GTGCTGGTTT TGTTGGAAA 339

SEQ ID NO:1982

LENGTH:334

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02259

SEQUENCE DESCRIPTION:

GATCCTTNCG TGCTGAATAT CTGAAAAGAG AAATTTTCC TACAAAATCT CTTGGGTCAA 60  
 GAAAGTTCTA GAATTTNAAT TGATAACAT GGTGGGTTGG CTNAGGGNAA GAGTATATGA 120  
 GGAACCTTTT AAACGACAAC AATACTGCTA GCTTTCAGGA TGATTTTAA AAAATAGATT 180  
 CAAATGTGTT ATCCTCTCTC TGAAACGCTT CCTATAACTC GAGTTTATAG GGAAGAAAA 240  
 AGCTATTGTT TACAATTATA TCACCATTAA GGCAACTGCT ACACCCTGCT TTGTATTCTG 300  
 GGCTAAGATN CATTAAAAAC TAGCTGCNCT TAAA 334

SEQ ID NO:1983

LENGTH:332

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02260

SEQUENCE DESCRIPTION:

GATCTTGTGC CAAGCTNAGG GTGTAGCGCT GCAAACGATG AAGCAAGAGT TTCTCATTAA 60  
 CCTTGTGAAG CAAAAGCCAC AAATAACANA GGAACAACTT GAGGCTGTCA TTGCANATTT 120  
 CTCAGGCTNT TGGAGAAATG CTGCCAAGGC AGGACAGGAG TCTGCTTTGT GAGAGGGCAA 180  
 AAAGTATTT CAAAACCTCG CCTGCTTTGG GNTTTAAATT ACTTCAGGGN AGANAGCAAA 240  
 CAGNCTTTC ATTGGGTGTN ACTTTTCTCT NNAATTTTAA CTNNTTTAAC ACTTTTGTG 300  
 GATTAATGNA ATGATAAAGC CTTTATCGC NN 332

SEQ ID NO:1984

LENGTH:331

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02261

SEQUENCE DESCRIPTION:

GATCCTGTGT GTGTGTACTA CCATAGAATG GGCCCCAAGA TGCATGATNA AGTGAGGAAA 60  
 AAAGCCCATG GTATCCTAAT GTTGGGAATG GAGAAAGTGT GTAGATGTAT GTGTGTGCAT 120  
 ATGTTTTTAC ACAGACGTAT ACACGTGTAT ATCATATGTC CACCTGCATA TGCCTAGGAT 180  
 GTCTCTGGGA GGATATCTAG CAGCCCGGCA GCCTGAATTG CCTCTGGGAA GAGGGGTGGG 240  
 AATGACTTTT CAATGTACAC CTTTGTACC TTTTGAATTT TCGTACCATG TACATGTATT 300  
 ATCTATTAAA AAATAGTTCT TAATTTTAA A 331

SEQ ID NO:1985

LENGTH:326

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02262

SEQUENCE DESCRIPTION:

GATCACCCGG CAAGTTCAGG CTGAATTCTG AAGGCAAAC TGAAGCAGAC GTCTCCATGG 60  
 CAACCCGAGC TTCAGAGGCC GAGGATGCCT CCCTTCTCAG CTTTCATGCAG GGCTACATGA 120  
 AGCACGCCAC CAAGACCGCC AAGGATGCAC TGAGCAGCGT GCAGGAGTCC CAGGTGGCCC 180  
 AGCAGGCCAG GGGCTGGGTG ACCGATGGCT TCAGTTCCTT GAAAGACTAC TGGAGCACCG 240  
 TTAAGGACAA GTTCTCTGAG TTCTGGGATT TGGACCCTGA GGTCAGACCA ACTTCAGCCG 300  
 TGGCTGCCTG AGGACCTCAA TACCCN 326

SEQ ID NO:1986

LENGTH:321

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02263

SEQUENCE DESCRIPTION:

GATCCTTACA TCTGCATCTA GTTATCAGTA ATTTAGATAT TGAGCTATTT TGATTATAT 60  
 TTAAGAAATT AATACATTAG CACTGAAAGT TAAATAGTGT GTTTAAGGTA GTTAATTTCA 120  
 GGTGGAATGG GTTTTTTTTA ATGAAGTGTA AATAATACCA ATGTATAAGN GTATATTATN 180  
 ATATTAAATA TTATAGTAAA AAGGAATGTG TGGTATTNCT TNCAGCAAAA CTATTTTGT 240  
 GATNTTTTNA TTCTCANCTT TNTATTTAAA AAATGTTACA TCTGCAGAAA AGTTGAAAGT 300  
 ATAATAAACT CTCAGTTAA A 321

SEQ ID NO:1987

LENGTH:321

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02264

SEQUENCE DESCRIPTION:

GATCTGCGCT GTGGCTGTCC CTGGACGTGC TGCAGCCCTC CTGTCCCTTC CCCCAGTCA 60  
 GTATTACCCT GTGAAGCCCC TTCCCTCCTT TATTATTCAG GAGGGCTGGG GGGGCTCCCT 120  
 GGTCTNAGC ATCATCCTTT CCCCTCCCTT CTCTTCCTCC CCTCTGCACT TTGTTTACTT 180  
 GTTTTGACA GACGTGGGCC TGGGCCTTCT CAGCAGCCGC CTTCTAGTTG GGGGCTAGTC 240  
 GCCGAATTCT ACAATCCCGC TGGGGCGGCC GGGGCGGGAG AGAAAGGTGG TGCTGCAGTG 300  
 GTGGCCCTGG GGGGCCATTC N 321

SEQ ID NO:1988

LENGTH:315

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02266

SEQUENCE DESCRIPTION:

GATCAAAAAT TTCTATCTGG AGAACCTCTG CGGACAAACC GAGTGCTTCC TGCAATTCCA 60  
AGTCAACGAA GACACAGCAC AGCAGCAGAA GAGAGTGAAC ATTCTGCCAA CCCCACCAGT 120  
GATGAAAATT AACTGTGGGC CACTCGCTGC AGAAATGTAG ATGAATATGT ATTTTCAACT 180  
CTCAAAGGAC AAGATTACTC CAGTTTGTA GAACGAAGAC CAATTTAGTA AGCTGCATTC 240  
TATAAGCCAT CAGTTTTATA ACTCGAAATT CTTTATTCCA AATAAAGATA CTCCCTAAAT 300  
AAGCACTTAG ANAAA 315

SEQ ID NO:1989

LENGTH:312

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02268

SEQUENCE DESCRIPTION:

GATCAAAGCT GGGGCTGGAG GGTGGAGGTG TCAAGCCAGG CCAGGCAAAG GGAGATTGA 60  
AGCCAGAGCA GGTGGGCGCA TCTCCCAGGA AACCTGCGAT CATTCTTTCC TGGTGATTCT 120  
TTCCTTCTTT GTTATGGTTC ACATGAGTCT ATGGAGTGCT CATTCTACAT TCTCCGTTCT 180  
TATCTTCATC CTATGCAACT TTAGACCGCT ACTGTTTTTT AAAAGTGATT TGATTGNGG 240  
CTGTAACTT TTTTATTGT TGTTAGCTTT GACTTTGAAA TGTGTAATAA AGATTCAAGT 300  
GAGCATTAGA AA 312

SEQ ID NO:1990

LENGTH:310

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02269

SEQUENCE DESCRIPTION:

GATCTTGGGG TCCCCGACG ACGTGCTCGA GTTCCTGAAG GTGTATGAGA AGCACTCNGC 60  
CCAGTGAGCA CCTGCCCTGC CTGCATCTGG AGAATTGCCT CTACCTGGAC CTTTGTCTC 120  
ACACAGCAGT ACCCTGACCT GCTGTGCACC TTACATTCCT AGAGAGCAGA AATAAAAAGC 180  
ATGACTATTT CCACCATCAA ATGCTGTAGA ATGCTTGGCA CTCCCTAACC AAATGCTGTC 240  
TCCATAATGC CACTGGTGT TAAATATATT TTGAGTGGAT GGAGGAGAAA TAAACTTATT 300  
CCTCCTTAAA 310

SEQ ID NO:1991

LENGTH:305

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02270

SEQUENCE DESCRIPTION:

GATCCGAGTG AATGCAGTAA ACCCCACAGT GGTGATGACG TCCATGGGCC AGGCCACCTG 60  
GAGTGACCCC CACAAGGCCA AGACTATGCT GAACCGAATC CCACTTGGCA AGTTTGCTGA 120  
GGTAGAGCAC GTGGTGAACG CCATCCTCTT TCTGCTGAGT GACCGAAGTG GCATGACCAC 180  
GGGTTCCACT TTGCCGNTGG AAGGGGGCTT CTGGGCCTGC TGAGCTCCCT CCACACACCT 240  
NAAGCCCCAT GGGCGTGCTC ATCCTACCCC CAATCCNTCC AATAAACCTG ATTCTGCTGG 300  
CCAAA 305

SEQ ID NO:1992

LENGTH:301

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02271

SEQUENCE DESCRIPTION:

GATCGAGACA CGTGATGGGA AGCTGGTGTG TGAGTCCTCT GACGTCCTGC CCAAGTGAAC 60  
AGCTGCGGCA GCCCTCCCAG CCTACCCCTC CTGCGCTGCC CCAGNNCTG GGAAGGAGGC 120  
CGCTATGCAG GGTAGCACTG GGAACAGGAG ACCCACCTGA GGCTCAGCCC TAGCCCTCAG 180  
CCCACCTGGG GAGTTTACTA CCTGGGGACC CCCCTTGCCC ATGCNTCCAG CTACAAAACA 240  
ATTCAATTGC TTTTTTTTTT TGGTCCAAAN TAAACNTCA GTTAGCTNTG CCAATTTNAA 300  
A 301

SEQ ID NO:1993

LENGTH:311

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02272

## SEQUENCE DESCRIPTION:

GATCTGAACT CCAGCTGCCC TACAACTCC GTCACAGCTT TTNTTCTCAC TTCATGTGAA 60  
 AACTACCCCA GTGGCTGACT GAATTGCTGA CCCTTCAAGC TCTGTCCTTA TCCATTACCT 120  
 TAAAGCAGTC ATTCCTTAGT AAAGTTTCCA ACAAATAGAA ATTAATGAAT AAATGTTGAC 180  
 ACTTTGATAG CACTGATATG GAGATTATCC TTTCATTGAG CCTTTTATCC TCTGGTCTTC 240  
 TTTGAAGAAC CCCTCACTGT CACCTTCCTG AGAATACTCT AAGACCAATA AATACTTCAG 300  
 TATTTAGAA A 311

SEQ ID NO:1994

LENGTH:297

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02274

## SEQUENCE DESCRIPTION:

GATCTAAAAC TNAAGAACAA ATTCTATTTA TTTATTATTG GAAAATNAAA AGCAACTCAA 60  
 AACAACCTCA ACCTGGAGGT GCATTATATA TTCATTCTGC ATTTATTCTG TAAAAAGGTG 120  
 ACTGTTTTAT AAATNCTTTT AATTTATGTT CAATATATAT AAAAAGTGCA TCTNTTTTNT 180  
 TTTCCCTTT TTTCTCCATA ATTTAAGAA ATGAATNNGN TTGTTGTCAA CACATTTGTG 240  
 AAGTCTTGTG CTATAAAGGG GAACCTCCCC TAATAAAGG GCCTTGAAA CCTCAAA 297

SEQ ID NO:1995

LENGTH:293

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02275

## SEQUENCE DESCRIPTION:

GATCTAGGAG AGGCGGCTCT GAACGATTAC CTGCGGGTCA AGACAGTNAC CTCGAATAC 60  
 TGAAGAAAGG TCTTTTAAAG AAGAAAGTCC CTGCCCCTCC CTCGTGGCTG GGGCCCCCTC 120  
 CCTNTTAAAG CTGGNTGCAC AGCACCTCCC ACCTGGGGGG CTAGTGGAAG CCCTCCTGCN 180  
 TGCACACCAT GTTTCNTCT TGGACGCCCT CTTCCAGTN ANAAGCAGCC CTTGGNTGNN 240  
 TNAGGTGTGC CCCTCCCAGG NAGAATAAAG CTTCTAAAGA NAGACCGTCC AAA 293

SEQ ID NO:1996

LENGTH:290

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02276

## SEQUENCE DESCRIPTION:

GATCAGGAGG AAGTGAGCAG TCGCCTGCCT GCAGCAGGNA GCTTCTACT CCTGCCTCAT 60  
 GCGTACGTCC CACAAATGCA GGTGTCCTGA GCACCACACC CAGTGGGAAG AGTGTGGGGG 120  
 AGGCGCACAG TGTGAGCCCG CCCCCACGTC GTGGGTTAAC ATCTGTTATC AACTGCTGT 180  
 CGTTGTTGTG GGTGTTGCTC TTGAACAAGA TGTGGGCCCTT GCAAGATGGG AGAGTAAACC 240  
 TTGAAGGGCT TTATTAAAGA AATAAAAAAG NACTTNTTGT ATCTTTTAAA 290

SEQ ID NO:1997

LENGTH:289

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02277

SEQUENCE DESCRIPTION:

GATCCTGAAG AGGATGGTGT GGAATGCAC TTTGAGAAAT GNCTATCTAA CCTTNGAAA 60  
 CTTAAAGTGT TCCCAGTCCC CATTATACTT TTTAAAACCA CAATAGTCAC ATAAGGAAAT 120  
 AATCTAGCAG CTCATCCCTT TGCATCCAAT GTTTGAACTA TTTTGTAGAAA GTGCTCTNGT 180  
 TCTGTCAAAG AACCTTCAAC ACAGAAAAAT ACANAAATGA GGGAAATGTA TAATTCCTGC 240  
 AGGAGAGAAG TGTTGTTAAC ATGTCAATAN ATGTTCTTAG ANAGTTAAA 289

SEQ ID NO:1998

LENGTH:279

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02278

SEQUENCE DESCRIPTION:

GATCAGAGAA GCTAGGAGAG CTCCAGCAGG GGCACAGAGG ATTGGNNGCA GGAGGAGTCT 60  
 GGAACACAGC CTTTCATGCCC CCTGACCCCA GGCCGACCCT CCCACACCCC TAGGGTACCC 120  
 CAGTCGTATC CTCTGTCCGC ATGTGTGGCC AGGTCTGACA AACACCTGTA GATGACTGNT 180  
 GGCCNAACCT GGGNCTGNN CAGGAGGTTG GAGCAGNAAG GGCTCTCCCT AGGGGTGGTG 240  
 TMTCTCTCT AGGGTATTGG GNTGCATGTN NTGCACTNN 279

SEQ ID NO:1999

LENGTH:274

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02279

SEQUENCE DESCRIPTION:

GATCATGAAG GAACACATAG CACCAAGAGA GGCCATGCTA AATCTCGCCC TGTCAGAGGT 60  
 ATCCACACTT CTCCTTTGGG GAAGNCTTCC CTGTCCCCCT TGCATTTCTT TCTTAACTCT 120  
 CTGTTACACG TCATTGAAAC TACACTTTTT TGGTCTNTTT TTNTGCTAGA CTGTAAGTTC 180  
 CTTGGGGNCA GGGCCTTTGN CTGNCTCATC TCTGTATTCC CAAATGCCTA ACAGTACAGA 240  
 GCCATGACTC AATAAATACA TGNTAAATGG NAAA 274

SEQ ID NO:2000

LENGTH:280

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02280

SEQUENCE DESCRIPTION:

GATCTTAACA AAATTCGTAG CAGTGAACC TTGAAATGCA TGTGGCTAGA TTTATGCTAA 60  
 AATGATTCTC AGTTAGCATT TTAGTAACAC TTCAAAGGTT TTTTTTTGTT TGTTTTCTAG 120  
 ACTTAATAAA AGCTTAGGAT TAATTAGAAG AAGCAATCTA GTTAAATTC CCATTGTAT 180  
 TTNATTTNCT TGAATACTTT TTNCATAGTT ATTTGTTTAA AANGATTTAA AAATCATTGC 240



ACTTTGGTCA GAAAAATAAT AAATATATCT NATAAACAAA

280

SEQ ID NO:2001

LENGTH:271

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02281

SEQUENCE DESCRIPTION:

GATCTGCATG TTCTCTCTT GGGTTCAAGC ATTCCTTAC AGAAGAGCCA CCGTGGAAGT 60  
 CATGGGTAAA TATGTGTGA ATTGGTAACT CCCTCTTGA GAATTCTTG TGAATTACAC 120  
 AGCAATAGGG GAACTCATT AACTGGAGAC ATAATCTCA TTTGTAAAGT GTGGCCCAT 180  
 TTCTAACATT TTNANNTGC ATACCCTCCC CTCTCTTCTC GATTGATGAA ACTAACAAAG 240  
 AGGTTAATAA AAGCCCATCT CGTCATGTAA A 271

SEQ ID NO:2002

LENGTH:270

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02282

SEQUENCE DESCRIPTION:

GATCTTACCC GTGACAAAAT GTGTTCCATG GTCAAAAAAT GGCAGACAAT GATTGAAGCT 60  
 CACGTTGATG TCAAGACTAC CGATGGTTAC TTGCTTCGTC TGTCTGTGT TGGTTTTACT 120  
 AAAAAACGCA NCAATCAGAT ACGGAAGACC TCTTATGCTC AGCACCNCNA AGGTNCGN 180  
 AATNCGGGAG AAGATGATGG GNAATCATTG GCCCCGTGAG GGTCAAGGC AAANTTTGCT 240  
 TTTGAANGNA AGGGGGGNN AATAATTNGN 270

SEQ ID NO:2003

LENGTH:265

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02283

SEQUENCE DESCRIPTION:

GATCCCAACA GAAGAACATC GGAGACCAGA GAGAGGAAC CAAAGGGGCG CTGCCTCCGG 60  
 GTCTGGGGTC CTGGCCTGCG TGGCCTNTTG GCACGTGTTT CTCTTCCCG CCCGGCCTCC 120  
 AGTTGTGTGC TCTACACAG GCTTCCTTCT CGACCGGCAG GGGCTGGCTG GCTTGCAGGC 180  
 CACGAGNGTN GGCTTACCC NACACTGGCT TTGCTGTGTA TACGCTTNTT GCCCTTAAAT 240  
 AAATATGCAC ATTTTATCCA TAAA 265

SEQ ID NO:2004

LENGTH:249

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02285

SEQUENCE DESCRIPTION:

GATCCACATT GTTAGGTGCT GACCTAGACA GAGATGAAC GAGGTCCTTG TTTGTTTTG 60

TTCATAATAC AAAGGTGCTA ATTAATAGTA TTTCAGATAC TTGAAGAATG TTGATGGTGC 120  
 TAGAAGAATT TGAGAAGAAA TACTCCTGTA TTGAGTTGTA TCGTGTGGTG TATTTTAA 180  
 AAAATTTGAT TTAGCATTCA TATTTTCCAT CTTATTCCCA ATTAAAAGTA TGCAGATTAT 240  
 TTGCCCAA 249

SEQ ID NO:2005

LENGTH:242

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02287

SEQUENCE DESCRIPTION:

GATCAGGAGC AAACAGACCC TGCAAGGTCC TCCAGGCCTG GGGACAGGAA AGCCACTGAC 60  
 CCAGCCCGGG AGGCAGAACC AGGCAGCCTC CNTGGCCCCA GGCAGCCCTT TTCCCTCCAG 120  
 TGGCACCTCC TGGAAACAGT CCACTTGGGC GCAAAACCCA GTGCCTTCCA AATGAGCTGC 180  
 AGTCCCCAGG CCATGAGCCT CCCGGGAATG TTTAATAAAG GGCCTGGCCA CCTCTCCTCA 240  
 AA 242

SEQ ID NO:2006

LENGTH:239

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02288

SEQUENCE DESCRIPTION:

GATCTAAGTT TGATAAGAGC CTGTGTGGTG AGTATGGTGT GTATGTGAAG GTGACTTCCA 60  
 TCCAGGACTG GGTTCAGAAG CCATAGCTGA GACTAATGCA AGGCTGGCGA AGCCTTGCTG 120  
 AAAGAAGATT TCAGCTGGAG AGGCAAAGTG GCGGGAGTGG CAGAGTGGTG CGTAAGTGTG 180  
 GTTAAGTNTG GGTCCANCCT GCATTCTGAG CAATCAATAA AGTNTTCTT TTNCCCCAA 239

SEQ ID NO:2007

LENGTH:238

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02289

SEQUENCE DESCRIPTION:

GATCCTGAAG GTAATACAAT CAGCAACATT AAAACATTTT TTTCATTTT TGTTACTGAA 60  
 GTAAAATAAG CATTCCACAT TTATAACAA CAGGTTATTT CAGGAAGATA TTTTCATATC 120  
 TTACAGCGAA AAGTCTTTT AAACAGAAGC ACCTAATATT TAATATATTA TTTTGTAAT 180  
 TATTGACTAA CAAAATGATG ACTCGACTGG CGAAATAAAA TACAGTTTTT AAATCAA 238

SEQ ID NO:2008

LENGTH:236

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02290

SEQUENCE DESCRIPTION:

GATCCTGAGA NCTTCAAGCT CCTGGNNAAT GTNCTGGTGA CCGTTTTGGC AATCCATTTC 60  
 GGCAAAGAAT TCACCCCTGA GGTGCAGGCT TCCTGGCAGA AGATGGTGAC TGGAGTGGCC 120  
 AGTNCCCTGT CCTCCAGATA CCACTGAGCT CACTGCCCAT NATGCAGAGC TTTCAAGGAT 180  
 AGGCTTTATT CTGCAAGCAA TCAAATAATA AATNTATTCT GCTANGNNA AACAAA 236

SEQ ID NO:2009

LENGTH:235

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02291

SEQUENCE DESCRIPTION:

GATCATTACC ATTACAGGAA CACAGGACCA GATACAGAAT GCACAGTATT TGCTGCAGAA 60  
 CAGTGTGAAG CAGTATGCAG ATGTTGAAGG ATTCTAATGC AAGATATTTT TCCTTTTTTA 120  
 TAGTGTGAAG CAGTATTCTG GAAAGTTTTT CTAAGACTAG TGAAGAACTG AAGGAGTCCT 180  
 GCATCTTTN NNGTTTAANC TGCTTCTGTT NAAAANGCCA NCATTCCTCT GTTN 235

SEQ ID NO:2010

LENGTH:233

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02292

SEQUENCE DESCRIPTION:

GATCCTGAAG AACTTCAAGC TCCTGGGAAA TATGCTGGTG ACCGTTTTGG CAANNNGTTT 60  
 CGGCAAAGAN TTCACCCCTG AGGTGCAGGC TTCCTGGCAG AAGATGGTGA CTGGAGTGGC 120  
 CAGTGCCCTG TCCTCCANAT ACCACTGAGC TCACTGCCCCA TAATGCAGAG CTTTCAAGGA 180  
 TAGGCTTTAT NCTGCAAGCA ATACAAATAA TAANTCTNTC CTCCTAAGAG AAA 233

SEQ ID NO:2011

LENGTH:229

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02293

SEQUENCE DESCRIPTION:

GATCCTTGAC GAGGAGAGAG AGCTTGAAAA GCTGTTTCAG CTGGGCCCCG CTTACCTGT 60  
 GAAGATGCC TCTCCACCAT GGGAAATCCAA TCTGTGCAG TCTCCTTCAA GCATTCTGTC 120  
 GACCCTGGAT GTTGAATTGC CACCTGTTTG CTGTGACATA GATATTTAAA TTTCTTAGTG 180  
 CTTCAGAGTT TGTGTGTATT TGTATTAATA AAGCATTCTT TAACAGAAA 229

SEQ ID NO:2012

LENGTH:223

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02294

SEQUENCE DESCRIPTION:

GATCTGGCAT AAATAAATTN AATAAATATT TTAATGCTCC ATTTTTTAAT GTTGCTTTTC 60

ATACTAAAGA ATGGTGTAGA CTTGTTTTGC AACTNTAAGG TACCCAGTTA TCAATTTAAT 120  
CAATGTTTTA GAGNAGGAAA TNATTTTTTN GGTAGAAATT GTTCANGAAC CTTAATTGAA 180  
TGCATTAAAT GATGGTGGCA AAATAAACCT ATTAGAAATT AAA 223

SEQ ID NO:2013

LENGTH:221

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02295

SEQUENCE DESCRIPTION:

GATCAATGCC CTCATCTGCA ATGTAGGGGC CGGTGGACCT GCTCCAGCAG CTGGTGCTGC 60  
ACCANAGGAG GTCCTGCCCC CTCCACTNCT GCTGCTCCAG CTGAGGAGAA GAAAGTGGAA 120  
GCAAAGAAAG AAGAATCCGA GGAGTCTGAT GATGACATGG GCTTTGGTCT TTTTGAATAA 180  
ACCTCTTTTA TAACATGTTC AATAAAAAGC TGAACTTTAA A 221

SEQ ID NO:2014

LENGTH:219

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02296

SEQUENCE DESCRIPTION:

GATCTGTAGT GTCATGGGTG CTGCCGAGA CGNAAGTTGA NCTGGGGGTG CCTGCAGCCT 60  
TCCACTCTCG CCCCGCCTCA CCCACATGC TCCCTGTTTC TAATGCTTTC TCTAACTTCC 120  
TCACCCCTTA ACCAAAAAGG TGTGTTNCT TTTGTNCATA TAGCCATTCT NAAATATNAG 180  
TAATGTAAAC CTNACTTTAT TAAAAAATTA TCCAGCAAA 219

SEQ ID NO:2015

LENGTH:216

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02297

SEQUENCE DESCRIPTION:

GATCAGGTTT GTTGAGTTT TTAGCCTAAT TCCAAAGCAT GGAAGAGTGC TCTAGGTAGG 60  
AAAGAAAGCT TTTTCTTACG ATTTGTAGCT ACCTACTGTG CCTGACTTGG TGCCTGTGTG 120  
AGGATTAAGC CCTTAGTCTG CTCTTGCAAT TATTCAAATG ACAAATTAAA TTTGCTTTTG 180  
TAATAACAAT AAAAGTTGTC ATCTTCCTT TTGAAA 216

SEQ ID NO:2016

LENGTH:210

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02298

SEQUENCE DESCRIPTION:

GATCCTGCCA TCACTGCTGC AAAGAGAACA CGAGACTCAA GGAAACTCCT CCTCCACCGC 60  
AGCCCAACTG TGCCTGCTAG TNTCCCGTG CACACAGGCA GCTCCAGGGG GCTCTGGTTG 120

CCAACAAACA GCATTTGTAA ATGGTCTATT AGCCTTCATT TATACTGCCT AACAATTATT 180  
TGAAGGAATA AATTGATGTC AATGGCTAAA 210

SEQ ID NO:2017

LENGTH:219

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02299

SEQUENCE DESCRIPTION:

GATCTAGCCT GATTCTGCG TGTCCGAAAG AACTTAACGT TTAAAGGTN ATTGTNAAGT 60  
AACTGTGTGG GGTCTAATG CCAGTTTCCT AATTCCATCT CACTGGAGAT GTTTAAAGTT 120  
GGCCTCTATC CTAATGACTC AAAACTTGGT TCTTAACTAC CATGATTGCT TTTNAGGGCC 180  
CGGAATTATA AATATATATN ATATTTAANT TGTTTGAAA 219

SEQ ID NO:2018

LENGTH:208

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02300

SEQUENCE DESCRIPTION:

GATCCGGGGC ACAAAGAGGG TGGGGAACAT GGGGGCTATA CTGGGGAAAG CAGCCATGCT 60  
CCCCCNACC TCCAGCCGAG CATCCTTCAT NAGCCTGCAG AACTGCTTTC CTATGTTTAC 120  
CCAGGGGACC TCCTTTCANA TGAAGTGGGA AGAGATGAAA TGTTTTTCCA TATTAAATA 180  
ATAAGAACA TTA AAAAGCA ACCCAAAA 208

SEQ ID NO:2019

LENGTH:202

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02301

SEQUENCE DESCRIPTION:

GATCTCAAGG CTGCCGTACT GGAGGCCATG ACTGCCTTCC GCAGAGCAGG TGCTGACATC 60  
ATCATCCCN ACTACACACC GCAGCTGCTG CAGTGGCTGA AGGAGGAATG ATGGAGACAG 120  
TGCCAGGCC AAGAACTAGA ACTTTAAAC GTTCCCGGG CCTCAGACAA GTGAAAACCA 180  
AAGTAAATGC TGCTTTTAGA AA 202

SEQ ID NO:2020

LENGTH:224

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02302

SEQUENCE DESCRIPTION:

GATCTTCTTT GAGACAAGGC AGGCTGTGGC CATGTAGCCC CATCACA CTG TGTGTGAT 60  
TGTCTGTGTG TCTGTCTCCC CCACCAGACT GTGAGCTCCA TGAGGGCAGG GACCGTGTCT 120  
TGTCGGTCT CTGTATCCCC AGTGCTTGA ACAGAGCGAG TGCTCACTGT GTATTTAATA 180

AATGGACAAA GAGAGAGGAT GACCCTCAG GGGAGACAGA GAAA

224

SEQ ID NO:2021

LENGTH:195

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02303

SEQUENCE DESCRIPTION:

GATCGGCAAA TGCATTGGCC TCCTGGTTAA GCACGTTTTG GGGATAATTT TCTCTTCTTT 60  
AGGCAATGAT TAAGTTAGGC AATTTCAGT ATGTTAAGTA ACACACTTAT TTTGCCTGT 120  
GTATGGAGAG ATTCAAGAAA TAATTTTAAA ACCGCATACA TAATAAAGA CATTGTTGCA 180  
TGGCTTATAG TCAAA 195

SEQ ID NO:2022

LENGTH:193

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02304

SEQUENCE DESCRIPTION:

GATCTGTGCC GTGGTCCTGA GGCAGTTGTC TCCACACAAG TACCTCTAGA ACAATCCCCT 60  
TTTTTCCATC AAGCTGTAGC CTGCAGAGAA TGGAAACGTG GGAAAGGAAT GGTATGTGGG 120  
GGAAATGCAT CCCCTCAGAG GACTGAGGCA TAGTCTCTCA TCTGCTATTG AATAAAGACC 180  
TTCTATCTTG AAA 193

SEQ ID NO:2023

LENGTH:192

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02305

SEQUENCE DESCRIPTION:

GATCTNCCCT GCATCCTGAC CAAGACCCCA ACCGTGCCCC CAACAGACTC CCCCTGGGAG 60  
ATTCAGCCTA TTCCTGATG AGGAAAGTGA AGCCGGGTCT CCTGTCTCCC CAAATTCATT 120  
GCACCTACGA TATAGTCCAG GATTGGGTAG CAAGATTAAA CACAAGCGCT TCAAATTGAT 180  
GAAAACCACA AA 192

SEQ ID NO:2024

LENGTH:191

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02306

SEQUENCE DESCRIPTION:

GATCCCTAAC TACCAACCCC CTGAAGGCAG GTACAATGAC ATCACCAGG TGTACACACA 60  
AGTGGAGTTT AAGAGATAGA CTTGCAGGCT GCTATCCTTA ACATGCTGCC CCTGAGAGTA 120  
GGAATGACCA GGGTTCAAGT CTGCTTTCCA CAGAATCAGG CATNCTGTTA ATAAATACTG 180  
GTTTAATCAA A 191

SEQ ID NO:2025

LENGTH:186

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02307

SEQUENCE DESCRIPTION:

GATCGTATTT CAGTTTTTTG GGTCAATATA TGAACAATGT GTGAACCAGA ACGTATGGTA 60  
TTTGACATCA AAGCTATGTC TTGGCATATG TTTATGTTGA TATACTTGAA TTCATTTAAA 120  
ATGGAATGTT AATTACATCG ACTTCTTACT ATAAAAATA AAAAGTTATT GTCCAGTGCA 180  
CAGAAA 186

SEQ ID NO:2026

LENGTH:380

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02308

SEQUENCE DESCRIPTION:

GATCCATTGA GAAAGAGATG ATGTAATAAA TAATTAAGAT TAGTAATAAT ATTATCAGGG 60  
GTGATTATGA CCAGTTGAAT AATCTCTTTC CCTTGAATTA TTTAGCTAAC AAATTAAGTC 120  
TCCCAAATAT NTAAANTAAT GTAAANTCAT ATTNACTGC CCATTATTAA CTAAATATT 180  
TNTGTNTGAC TTTGAGCACC AACTGGTAAT ACTAGTAAAT ACCCATGTCA TGCAGATGGC 240  
TGGGCGAATA AGAGATGTCT AAAAATATGC ACTGGTCTTG GGAACATGG CACAAGTAAG 300  
GNTATCATAT ATGANGTCTG GTTTATTTTA TGTCTGATT CTTTTGTANT GAGTAGTTNG 360  
GGACTCCANT TCTAAGGNTN 380

SEQ ID NO:2027

LENGTH:183

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02309

SEQUENCE DESCRIPTION:

GATCTCTCCA CAGGGCTTGT TTTCCAAAGA AAAGTATTGT TTGGAGGAGC AAAGTTAAAA 60  
GCCTACCTAA GCATATCGTA AAGCTGTTCA AAAATAACTC AGACCCAGTC TTGTGGATGG 120  
AAATGTAGTG CTCGAGTCAC ATTCTGCTTA AAGTTGTAAC AAATACAGAT GAGTTAAAAG 180  
AAA 183

SEQ ID NO:2028

LENGTH:188

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02310

SEQUENCE DESCRIPTION:

GATCTGCAGC TGCCTTGGGA CTTGAATCCA TGCAATGTTT AGAGTGTGAA GTCAGTTACT 60  
TGTGATGTT TTCTTACTGT ATCAATGAAA TACATATTGT NATGTCAGTN CTTGCCAGGA 120

ACTTCTCAAC AAAATGGAAT TTNNTTTTNC AGTATTTCOA TAAATATTGA TATGCCCAGC 180  
CTGNTAAA 188

SEQ ID NO:2029

LENGTH:178

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02311

SEQUENCE DESCRIPTION:

GATCCATGCT GATTTTATT GCACAAGAAT TAGGTTTGAA CTCTTGAGCT GGAACCTCAG 60  
CAAACCTAGAG TATATATTGT TCAGTATNNC TTTGGAAACA TTTCATTAAT GTACTTGTCT 120  
TACANAAATT TCTGAACTTT AGTAAAAAAA AAATAAAGTT AAACCTTTAA AACTCAA 178

SEQ ID NO:2030

LENGTH:176

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02312

SEQUENCE DESCRIPTION:

GATCGGTATG TTTTGAAAAG AGTAATTTAA CTTTGGGTG CCAGGAAATG GGTTTTCTCA 60  
AAGTCCATTG CCGGCAATGG GCAGGCCTGC AAATACTGGC ACAGAGCATT AATCATACAC 120  
CTTATTAACG GTGAGGTGAA TAACTTTGAA ATAAAGTTT AGAGAAATGT TTCAA 176

SEQ ID NO:2031

LENGTH:174

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02313

SEQUENCE DESCRIPTION:

GATCCGCCTG GCAGCCATTG CAGAGTCAGG GGTAGAGCGG CAAGTACTTT TGGGAGACCA 60  
GATACCCAAA TTCGCCGTTG CCACTTTACC ACCCGCCTGA ATCCTGGGAT TCTAGTATGC 120  
AATAAGAGAT GCCCTGTACT GATGCAAAAT TTAATAAAGT TTGTCACAGA GAAA 174

SEQ ID NO:2032

LENGTH:172

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02314

SEQUENCE DESCRIPTION:

GATCCAGAAG TTATGGTGGC TTTCCAGGAT GTGGCTCAGA ACCCAGCAAA TATGTCAAAA 60  
TACCAGAGCA ACCCAAAGGT TATGAATCTC ATCAGTAAAT TNTCAGCCAA ATTTGGAGGT 120  
CAAGCGTAAT GTCCTTCTGA TAAATAAAGC CCTTNCTGAA GGAAAAGCAA CN 172

SEQ ID NO:2033

LENGTH:170



TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02315

SEQUENCE DESCRIPTION:

GATCTCAGGA CCTCTTTACA CTTTCAAAG TTACTTAAGA CTCTGAAGAG CTTTCTTTA 60  
TGAGGTTATA TCAATATTTA CTACATTAAA AATTAAAACA GAAAATTTAA AGTAGGTATT 120  
TATTGATTTA TTAAACAAT AAAAATAATA AAGTATTACA TGCTAACAAA 170

SEQ ID NO:2034

LENGTH:169

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02316

SEQUENCE DESCRIPTION:

GATCCGTTTG CTGTGAACCC TATGTTATTT CCATGTGTCA AGTGGGTCTT GTGTTGCCAG 60  
CTTCTATTTG AAGATTGCGT TTGCACTCAG TGTAAGTTTC TGTCAGCAGT AGTTTCACCC 120  
ATTTGCATGG AAAAATTTAA AGCTAATAAA GCAATTTAAA AAGCACAAA 169

SEQ ID NO:2035

LENGTH:159

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02317

SEQUENCE DESCRIPTION:

GATCCACAG TCTCAGCCCT GCTTACTAGT GAGAAAGACT GGCAAGGTTT CCTAGAGCTC 60  
TACTTACAGA ACAGCCCTGA GNCCTGTAAC TATGGGCTCT GAAGGGGGCA GGAGTCAGCA 120  
ATAAAGCTAT GTCTGATATT TTCCTTCACT AATATGAAA 159

SEQ ID NO:2036

LENGTH:151

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02318

SEQUENCE DESCRIPTION:

GATCCGGGGN AGCTAGGATG GGAACCTGC CACAGCCAGA ACTGAGGGGC TGGCCCCAGG 60  
CAGCTCCCAG GGGGTAGAAC GGCCCTGTGC TTAAGACACT CCTGCTGCCC CGTCTTGAGG 120  
GTGGCGATTA AAGTTGCTTC ACATCNTCAA A 151

SEQ ID NO:2037

LENGTH:148

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02319

SEQUENCE DESCRIPTION:

GATCTAACAT CAAACTAACA GCTTTCAGAA AGGAGACTNT TGNCATCTTT TCACCAAGGA 60

GTATATTTGT AGAGTAATAT ATGTGTGGAA NTTNAAATT ATATCATTG ACATGATTTA 120  
TGAGGCTTAT TTAAGCTGGA GTNNNCCN 148

SEQ ID NO:2038

LENGTH:143

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02321

SEQUENCE DESCRIPTION:

GATCTGGTCT AGTTAACCTA GAAGTATTTT TGTCTCTTAG AAATACTTGT GATTTTATA 60  
ATACAAAAGG GTCTTGACTC TAAATGCAGT TTTAAGAATT GTTTTGAAT TTAAATAAAG 120  
TTACTTGAAT TTCAAACATC AAA 143

SEQ ID NO:2039

LENGTH:142

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02322

SEQUENCE DESCRIPTION:

GATCTGGAGG AGGTGAAGGC CAAGGGACCT GCTTCTATTA GCCCTTCTCC ATGGCCCTGC 60  
CATGCTCTCC AAACCACTTT TTGCAGCTTT CTCTAGTTCA AGTTCACCAG ACTCTATAAA 120  
TAAACCTGA CAGACCATGA AA 142

SEQ ID NO:2040

LENGTH:156

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02323

SEQUENCE DESCRIPTION:

GATCGAAAGA AGAACATCAT GAAAAANAAA TNACTTTGC TTAGTGGATT AGACTCCTTT 60  
GCTGAAGTCA GTTATTCATC AAGAATGCAA TTAGACTAAT TGTGAATAAA TGATTGAATG 120  
AAGATATAAT AAATAAAAGC TATAATTATA GATAAA 156

SEQ ID NO:2041

LENGTH:138

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02324

SEQUENCE DESCRIPTION:

GATCTCTCCT TCAGTCTGCT CTGTTTAATT CTGCTGTCTG CTCTTCTCTA ATGCTGCGTC 60  
CCTAATTGTA CACAGTTT TAGATATCTAG GAGTATAAAG TTGTCGCCCA TCAATAAAAA 120  
TCACAAAGTT GGTTTAAA 138

SEQ ID NO:2042

LENGTH:137

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02325

SEQUENCE DESCRIPTION:

GATCCACAGG CAGAGCCAAG GGAAGGTGTG ATTCTNTGAG GAAAGAGTGA TTCTGATATA 60  
TGTAATTGTC ACATTGGTGT TGGACACATT TGGCCAAAA GTATGGTAAT NCTATTATNA 120  
AATAATTCTC TGAGAAA 137

SEQ ID NO:2043

LENGTH:134

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02326

SEQUENCE DESCRIPTION:

GATCCAAACT GGAANCAGCT CAAATNTCCA TCAATAGCAG AAAGATAAAC AAATGTNGGG 60  
ATGTNCAGAG CTTGAAATAT GACACANTAT AAAAGGACAA ACTATTAAAA CTCACAACAG 120  
CATGGATAAN TCTN 134

SEQ ID NO:2044

LENGTH:133

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02327

SEQUENCE DESCRIPTION:

GATCCAAGCA GGCCTTGAAT GCAATNGCAA GTGGTTTATA GTCCCTTGCT CTTACAACTT 60  
GCAGGGACAT GTGGTTATTT AGAAATTGTG ACTGAGCGGA CCCAAGAATN TAAATAATAT 120  
TCATAAACCT AAA 133

SEQ ID NO:2045

LENGTH:132

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02328

SEQUENCE DESCRIPTION:

GATCACCTGT AGGGAAATGA AGTGTNCCCT GGAACAAGGA GGTGGGGGCA NTGTGGCCCC 60  
TTCCCCAACT GGGGGTGGAC AGCTGTNTCC TGGGGTGGGT TGGTATTAAA GAGGAAAGCN 120  
ATTTTTTGA AA 132

SEQ ID NO:2046

LENGTH:130

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02329

SEQUENCE DESCRIPTION:

GATCCCAGGA ACTGTGGGCA CCCATTTTCT GTGTCTCCCA GCCCATTTCC ACTCCTAGTT 60

TGTCATGGAT AATNTTTGTT GTTCCCTGTG TGATTTTTC CATCAAAATA AAAATTTGAG 120  
ACTCGTTAAA 130

SEQ ID NO:2047

LENGTH:130

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02330

SEQUENCE DESCRIPTION:

GATCCAAGGT CAAAAAACA AATNCATCAA TTCAGCACAC CACCAACTNA NAGGCTAAGC 60  
ATCTTACTGC TAATTCATTG ANGCTGCCAT TTGTCAAGTG CCAAATTGAN TTATTGATTT 120  
GTCAATANTN 130

SEQ ID NO:2048

LENGTH:130

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02331

SEQUENCE DESCRIPTION:

GATCAGATAT AAAAAAATAA AGTTTTTNAT TTCATTAAAT ATTTAATTAA AACTGCTAAG 60  
TTTGAAAATT TTACCAAGA AATANTTTN ANAAATTTN CTAAGTGTAA AAAGGCTTTT 120  
AAGCAATAAA 130

SEQ ID NO:2049

LENGTH:129

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02332

SEQUENCE DESCRIPTION:

GATCTATATT CCCTTATTGC ATTTTCCTTA TGTATAATTT TCCAGATGGT GATGTTACTT 60  
TTCAGTGTAC TCATATGTCT CATTTTCATC TAAAATTAA TGGCAGGAAA CAAGGACTGC 120  
ATAGAGAAA 129

SEQ ID NO:2050

LENGTH:129

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02333

SEQUENCE DESCRIPTION:

GATCAAAAGC TTATTCNTTT TTTTTTTTTT TTCTTTGGTG TAAAGCCAAC ACCCTGTTTA 60  
AAANANATAA TTTTTTTTAA TCATTTTGCN TCTTTTTTTT TTGCTTCATT NAATAAAAAAN 120  
TGGAAGAN 129

SEQ ID NO:2051

LENGTH:148

TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS02334  
SEQUENCE DESCRIPTION:  
GATCTGAACA CCACAGCCCC TGTACTTGGG TTGCCTCTTG TCCCTGAACT TCGTTGTACC 60  
AGTGCATGGA GAGAAAATTT TGTCTCTTG TCTTAGAGTT GTGTGTAAAT CAAGGAAGCC 120  
ATCATTAAAT TGTTTTATTT CTCTCAA 148

SEQ ID NO:2052  
LENGTH:132  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS02336  
SEQUENCE DESCRIPTION:  
GATCCANCTN TNTCAACCTC CCAAGTAGGA TTACAAGCAT ACGCCGACGA TGCCCAGAAT 60  
CCAGAACTTT GTCTATNACT CTCCCAACA ACCTAGATGT GAAAACAGAA TAACTTCAC 120  
CCAGAAAACA AA 132

SEQ ID NO:2053  
LENGTH:126  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS02337  
SEQUENCE DESCRIPTION:  
GATCCATCCT TCTGCCTCC AAGGAGGATA CACAGAGAAT GGCTTCCTGT TGTTTTGTTT 60  
ATTTCTTAA CGTGACAGA TGGAACTTC ATTTAAAAAT AAAACAAAA CAACTCAAAA 120  
AGGAAA 126

SEQ ID NO:2054  
LENGTH:126  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS02338  
SEQUENCE DESCRIPTION:  
GATCAAAAAA GTCACGTCG TATTTCTTCT TTTCCTTTCT CTTTCTAGA AATTGGGTGT 60  
TTGTACCAGA ATGGAATTTT GCTTCTCGGT TATCCTGTGC TTCAGATGAT TATAATCTAA 120  
CCCAAA 126

SEQ ID NO:2055  
LENGTH:125  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS02339  
SEQUENCE DESCRIPTION:  
GATCAATCT TACAGTTCAT CACAGAATCC ATGTTGGTGA TAAATNCTAT AAAAGTAATA 60

GGGGTGGTAA GAACATCAGA GANTCCACAC AGGAAAAAAA ATCTATAAAA NGATTCTTTG 120  
TGAAA 125

SEQ ID NO:2056

LENGTH:124

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02340

SEQUENCE DESCRIPTION:

GATCCCACAG AAATGTTTTG GAGAGCGGGA GGTTTCCCCC AATCTCCTCC AAGTTCTTCT 60  
CCCTCCAACC AGAGTTGTGT CTAACCTTAG GCATCTTTTA ATAAATNTNA TTGCGACTCT 120  
GAAA 124

SEQ ID NO:2057

LENGTH:207

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02341

SEQUENCE DESCRIPTION:

GATCACTTCT GAATAAGCAG TTGCTTTTA TAAAACTTG CTGCCTGNCT AAAGATTAAC 60  
AGGTTATAGT TTAAATNTGT AATTAATGCT ACCATCTTGC AATAAAGTGA CAATTGAATG 120  
NAACAGGGTT TTTCAAGTTG TATAATTCTC TGAAATACTC AGCTTTTGTC ATATGGGTAA 180  
AANTTAAAGA TGTCATTGGN CTACAAA 207

SEQ ID NO:2058

LENGTH:120

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02342

SEQUENCE DESCRIPTION:

GATCTTTACT CTTGAGAAAT GAATAAGCTT TCTCTCAGAA ATGCTGTCCC TATACACTAG 60  
ACAAACTGA GCCTGTATAA GGAATAAATG GGAGCGCCGA AAAGCTCCNT AAAAAGCAAA 120

SEQ ID NO:2059

LENGTH:119

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02343

SEQUENCE DESCRIPTION:

GATCCAAGGT ATCCNTAACA NTGGAGCAGC CAAGTTTNTT TTCAGGCACA ATGACCCTGA 60  
CCACCTAAAG AACTTNTAG AGAAGTNTAA CCCTAAGATA CCAAAATTT TGGCCTTN 119

SEQ ID NO:2060

LENGTH:127

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02345

SEQUENCE DESCRIPTION:

GATCCCCTCT TCTCAGACAG CGCCAGGCCG GGGTGGGGCC GGGGTGGGG CCGAGCCCCA 60  
CAGCTGCCCC CCTCCNTCC CNTTTTGTAT AATTTAATAA AGAAATGGTC GCGCTTCTGT 120  
TTTAAA 127

SEQ ID NO:2061

LENGTH:117

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02346

SEQUENCE DESCRIPTION:

GATCGAGGTG GAGAAGATGC GCGGGCGGA GNCTTATNAC CGNNTAGAGA ACAGCCCACA 60  
GNTGGATGGG AGCCCCCAG GGCTCGAGGG TCTGCTGGG GGCATTGGG AGAAAGN 117

SEQ ID NO:2062

LENGTH:115

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02347

SEQUENCE DESCRIPTION:

GATCTGCTGA GGACACATGC GCTTTGTAG AATTTAACAT CTGGTGTTTT TCTGAAAAAA 60  
TATATATACA TATATTGCTT TATTGAAAC AATNAAAAT ATGCTGCATT TGAAA 115

SEQ ID NO:2063

LENGTH:114

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02348

SEQUENCE DESCRIPTION:

GATCTGGAGG AGGTGAAGGC CAAGGTGCTG CCCGCTGGGC CTCCCAACGG GCCCTCCTCC 60  
CCTCCTTGCA CCGGCCCTTC CTGGTCTTG AATAAGTCT GAGTGGGCGG CAAA 114

SEQ ID NO:2064

LENGTH:114

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02349

SEQUENCE DESCRIPTION:

GATCCAAAGT ATCAGGTCTG TTAGTGGCCA TCAGCACTTT AATATTGCCT CGAGGAGGAT 60  
TTCTTGGNCN CNNAATAA GGCATTAAG TCTTATGCCA AATTCAGTGC TCCN 114

SEQ ID NO:2065

LENGTH:113

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02350

SEQUENCE DESCRIPTION:

GATCCTAGAT AAGCAGGTGA AATTTAGGCT TCAGAATATA TCCGAGAGGT GGGGAGGGTC 60  
CCTTGGAAGC TGGTGAAGTC CTGTTCTTAT TATGAATCCA TTCATTCAAG AAA 113

SEQ ID NO:2066

LENGTH:109

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02351

SEQUENCE DESCRIPTION:

GATCTACGCT GTGCCTTGGC AGGGCACAAT GACCTTNTAG ANATCCACCT GTTAGAACGC 60  
CTAGGGGTCT GAACCGGGCT GGNCTGANN C TATCACCTCT TATGCACAN 109

SEQ ID NO:2067

LENGTH:108

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02352

SEQUENCE DESCRIPTION:

GATCCCAAGG CCTAGCCTGT GAAGGTCTCC TATCGGAAGA NTACCCCAT NNAATGGGAA 60  
GTGGAATTCC TGGTCAANTT GGTCTTNATG CTCTGGAAGA CGTAAGAN 108

SEQ ID NO:2068

LENGTH:108

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02353

SEQUENCE DESCRIPTION:

GATCTTAAGC AAAAATACTC ACTGAAATAG TATGTGGATG AATTCACCTA CTTACAATTT 60  
TATGGTTTCT TTGTAAATAA TAAATGTGAA TCTCAATTCT GCTTTAAA 108

SEQ ID NO:2069

LENGTH:104

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02354

SEQUENCE DESCRIPTION:

GATCTNGGC TCCACCTGGG TGGCCCTGAC CACGGGAGCC TTGGGCCTAG AGCTGCCCTT 60  
GTCCTNCCAG GACCCCNCC TGGCCACTGC CCGCCTACTN NCTN 104

SEQ ID NO:2070

LENGTH:408



TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02355

SEQUENCE DESCRIPTION:

GATCAGAGCT GCTGAGTTCA GGATGCCTGC GTGTGGTTTA GGTGTTAGCC TTCTTACATG 60  
 GATGTNAGGA GAGCTGCTGC CCTCTTGCG TGAGTTGCGT ATTCAGGCTG CTTTGCTGC 120  
 CTTTGGCCAG AGAGCTGGTT GAAGATGTTT GTAATCGTTT TCAGTCTCCT GCAGGTTTCT 180  
 GTGCCCTGT GGTGGAAGAG GGCACGACAG TNCANGCGCA NGTTCCTGGG CTCCTCAGTC 240  
 GCAGGGGTGG GATGTGAGTC ATGCGGATTA TCCACTCGCC ACAGTTATCA GCTGCCATTG 300  
 CTCCCTGTCC TGTTCCCCA CTCTCTTATT TGTGCATTCC GTTGGTTTC CTGTAGTTT 360  
 AATTTTTTAA TAAAGTTGAN TAAAANTATA AAAANAAGAG NNGGCGNN 408

SEQ ID NO:2071

LENGTH:101

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02356

SEQUENCE DESCRIPTION:

GATCAAAAGC TTATTCATCT TTTTCTTTT TCCTTTGGTG TAAAGCCAAC ACCCTGTTTA 60  
 AAAANCATAA TTTCNTTAAN CNATTTTCCC TCTTCTCNT N 101

SEQ ID NO:2072

LENGTH:102

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02357

SEQUENCE DESCRIPTION:

GATCAAAAAA AGAGTTTGAA GCTAATTTT GCAAAATTCA GGCAAAAAA GTAAGGCCAT 60  
 TATTTAACCC TGTGGCACCA TTAAATGTTG AAGAATGACA AA 102

SEQ ID NO:2073

LENGTH:95

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02358

SEQUENCE DESCRIPTION:

GATCTTTTTT GTCAGTTTGT TTGTATGAAA CTAAAGCCNT TATTTGTAA TAGTTCCTGC 60  
 TAAAACAATG AATAAAACT CAAGGAGCAA CTA 95

SEQ ID NO:2074

LENGTH:92

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02359

SEQUENCE DESCRIPTION:

GATCGTCTCT AGGATGATAT GCATGTTTCA AGTGGTATTG AAAGCCGCAC TGATGGATAT 60  
GTAATAATAA ACATATCTGT TATTAATATA AA 92

SEQ ID NO:2075

LENGTH:101

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02360

SEQUENCE DESCRIPTION:

GATCTAAGTT AGGAAAGACG ATGGAGGTGG AATCCTTTAA GATTATNTCC AGTTATTTGC 60  
TTAATAAAG AAGAAGTTAC CCTTGTCAAA ATCAGAACAA A 101

SEQ ID NO:2076

LENGTH:87

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02361

SEQUENCE DESCRIPTION:

GATCTTCATT TATTTTAATG GTAATGGTTT TAAAATATGT TCCTGATTGT ACATATTNTA 60  
AAATAACAT GTTTTTTAAC ATGCAAA 87

SEQ ID NO:2077

LENGTH:88

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02362

SEQUENCE DESCRIPTION:

GATCACAAAC ATTCAACAAA AAAGTTAACT TATGTGACTT GGCAGTTATT CTATACCATT 60  
TCCTGTCCAT TAAAATTTT AAAGGAAA 88

SEQ ID NO:2078

LENGTH:85

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02363

SEQUENCE DESCRIPTION:

GATCCCATTT AATATTTAAA AAAATCAGTA GCACAAATAT ATNTNAATTG TCAACTTACA 60  
AAATAAATA CATTTACAGT CTAAA 85

SEQ ID NO:2079

LENGTH:82

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02364

SEQUENCE DESCRIPTION:

GATCATCAAA AAAGAGGTAA TCTACGTTAT TTCCTATTCT AATGCTTTT CCTAATAAAA 60  
AACTTCAACT TTCTAAGTTA AA 82

SEQ ID NO:2080

LENGTH:80

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02365

SEQUENCE DESCRIPTION:

GATCCTTTCG GAATTGCACT TTTACATGTT GGGCGAATTT GTGTCCGTGC TGAAGTTTAT 60  
TAAAGGAAAA TAGATGGAAA 80

SEQ ID NO:2081

LENGTH:80

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02366

SEQUENCE DESCRIPTION:

GATCAAGCCT TGCTTGAGAT TGGCCTTACC TCTGGNCNTT TTTTGTATA TGAGCTAATA 60  
AATNCTGTTT ATTGTTTAAA 80

SEQ ID NO:2082

LENGTH:80

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02367

SEQUENCE DESCRIPTION:

GATCCATGAA GTNATTCAGT GGAAANATGC ACGTNATAC TATTNAGAG CACAAATAAA 60  
CTCACTATAC AATGGTCAAA 80

SEQ ID NO:2083

LENGTH:76

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02368

SEQUENCE DESCRIPTION:

GATCAAACCT CAAAGCAGCT TTNACTTGGA ATTTAAAAAT AAACAGTTCA AAGATACTCT 60  
ACATTATCAC CNTAAA 76

SEQ ID NO:2084

LENGTH:70

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02369

SEQUENCE DESCRIPTION:

GATCCATTTC ATGCAGGATT GTGTTGTTTT AACTGTTGTT GAGGAAACTA ATAAATAATT 60  
AAATTGTAAA 70

SEQ ID NO:2085

LENGTH:64

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02370

SEQUENCE DESCRIPTION:

GATCTAAGAT GTCCCAGGTC CTGGGAAGTT TACTCAATAA AGCTGGCTTT CCCCTGCCCT 60  
CAAA 64

SEQ ID NO:2086

LENGTH:64

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02371

SEQUENCE DESCRIPTION:

GATCCGTTGT AATGATGTGA ACATTTTATG AGTTTAAATA AAGTCATCTT ATGGTGTCA 60  
TAAA 64

SEQ ID NO:2087

LENGTH:61

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02372

SEQUENCE DESCRIPTION:

GATCTTAAAA TCAGTGATTA TCTTTTCTA AATAAAATAT CACCAGAATT CATCAGTTAA 60  
A 61

SEQ ID NO:2088

LENGTH:60

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02373

SEQUENCE DESCRIPTION:

GATCTAAGAT GTCCCAGGTC CAGGAAGTTT ACTCAATAAA GTGGCTTTCC CTGCCANAAA 60

SEQ ID NO:2089

LENGTH:66

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02374

SEQUENCE DESCRIPTION:

GATCTCCGGG CAGCCACCAC CTCCTCGGTC TGCCCCCTCA TTAAAATTCA CGTCCCACC 60

CTGAAA

66

SEQ ID NO:2090

LENGTH:59

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02375

SEQUENCE DESCRIPTION:

GATCATGCAA AGAAAACTTC CAAAAAGATT TATTAACCTA AACCAGCCTC TNTNGCAA 59

SEQ ID NO:2091

LENGTH:74

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02376

SEQUENCE DESCRIPTION:

GATCTCAAAT TGCCTCTGAA CCTTTTATAA GACAGTTTAT CTTCAAATAA ATTTATTTTG 60

CAATACCACG CAAA 74

SEQ ID NO:2092

LENGTH:56

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02377

SEQUENCE DESCRIPTION:

GATCAAAGTC TATTTTGCAT AAAATGTCCA ATAATTAAAT ATTGTTATAA AATAAA 56

SEQ ID NO:2093

LENGTH:55

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02378

SEQUENCE DESCRIPTION:

GATCGGCAGT TGGGAGGGGC GCTCTGAGAT TAAAGAGTTT TACCTCTGAG ATAAA 55

SEQ ID NO:2094

LENGTH:54

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02379

SEQUENCE DESCRIPTION:

GATCCANTCT TTGACAAACT GAAAAGAACT GAAAATAAAC ATTGCTCTTT CAAA 54

SEQ ID NO:2095

LENGTH:52

TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS02380  
SEQUENCE DESCRIPTION:

GATCCCTGCC CCTCCCCACT GGGACGGAAT AAATGCTCTG CAGACCTGGA AA

52

SEQ ID NO:2096

LENGTH:266

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02382

SEQUENCE DESCRIPTION:

GATCTGCTTA TAGAGCAGGA AGAATAAAGC CACCAACTTT TACCTAGCCC GGCTAATCAT 60  
GGAAGTGTGN CCAGGCTTCA AGTAACTTGA GTTTTAATTT TTTTTTTTC TTGGNAGAGT 120  
AATGTAAAT TTAATGGGG AAAGATATTT AANATTTAAT ACTAAGCTTT AAAAAGAAAC 180  
CTGCTATCAT TGCTATGTAT CTTGATGCAA AGACTATGAT GTTAATAAAA GAAAGTACAG 240  
ANGACACTTG GCATTCAAAG NTTAAA 266

SEQ ID NO:2097

LENGTH:451

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02399

SEQUENCE DESCRIPTION:

GATCTAGAGA GTGCTCAGAA TTAGGGCCTG GCATTTGGAA TCACAGGANA TATCATCACA 60  
GAAACAACTG TTITAAGATT AGTTCCATCA CTCTCATCCT GTATTTTNAT AAGAAACACA 120  
AGAGTGCATA CCAGAATTGA ATATACCATA TGGGATTGGN GAAAGACAAA TGTGGAAGAA 180  
ATCANNGNGC TGGAGACTAC TTTTGTGCTT TACAAAACCTG TGAAGGATTG TGGTCACCTG 240  
GAACAGTCTC CAATCTATGT TAGCACTATG TGGCTCAGCC TCTGTTACCC CTTGGNTTAT 300  
ATATCAACCT GTAAACATGT GCCTGTAAC TACTTCCAAA ATCAAANTCA TACTTATTNG 360  
AGGAANATTC TGATTTNTA GANAAAANNT NGAGCNAGGN GATTATANCN TGTTCGAAG 420  
TCATGTGGTT TCTTTCTCAA TNGGGGGNNA N 451

SEQ ID NO:2098

LENGTH:441

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02400

SEQUENCE DESCRIPTION:

GATCCCAAAC TGTTCCCTTT TTCATTCTTT GAAATGTTAC CACTACAGAC ATTTTTNAA 60  
GGTGAATAAA CAGTTGTNAT GTGCTGTACC TAAATCATG TTTAATCGTA TAAGGAAACA 120  
TTTCAATACA CTTATACAGG AAGAAACTA TAGATGAAGT ACATGTGTGT GATTCAGTCT 180  
GATTCACAGA ATTCTGAGAG TAATATGGAA TAAAACAACCT CCACTTAGAT GATAACTGAA 240  
GCATTTCTCG CCTTGTAAGAA ATTTGGNTTT TAAATTGCTG TTAGAATGGG NAATTTGGAC 300  
ACTTTATATC ATTGTATANT TNCAGACTTT AGNTTCTGTA TCTNTTGGGA ACCATGGTTA 360

TAGCAAAACC NTTGGNAATA ATCCTGTTTC CNANACCNCC CTNNATGTAA ACCTGGTATG 420  
CTTGGCTGGT AACNCCTAAG N 441

SEQ ID NO:2099

LENGTH:440

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02401

SEQUENCE DESCRIPTION:

GATCTATGTC TNCTGCCTGG CTCCTAGATG GCTCTCCGGG CAGGTNCTGG CCAAGGACAT 60  
CATCTAGGCA GGGGGAGAGC CTGGNCTGAA CAGCTGTNAC CAAAACTCCC TTCTNCCCCA 120  
CCCTGCCCCC TCCACTTCCT GCCCTCTGTT CCATCTTCCC CCTTCCCAA GGCCACAGCC 180  
TTTATTCCAG GCCCAGGGAT GTAGGAGGGG GAAGGAGGAA ACAGGAAGCC CAGAGAGGGC 240  
AAAGGGCCTA CCTCGGGGCG CGAACCATGC CCCANACTAT TATCTCAGGG CTTTCTGGGC 300  
ACTNGCACTT CAGCGTGGCC CACCTGCCCC TGCCCTGAGG CCAGTTNGCG AGGGGTGGCT 360  
CCTGAGGGTT TTTATAACCT TTGTTGNTA ATGTTTAATT TTTGCATCAT AATTCTACA 420  
TTGTCCCTGG AGTGTAAGAN 440

SEQ ID NO:2100

LENGTH:411

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02402

SEQUENCE DESCRIPTION:

GATCAAAAGG CTGAAAGGTT TGCTCACCCA GCACGGCATC CCCTACACGA GGCCACAGA 60  
AACTTCCAAC TTGGAGCACT TGGGCCACGA GACGCCAGA GCCAAGTCTC CAGAGCAGCT 120  
GCGGGGTGAC CCAGGACTGC GTGGGAGTTT GTGACCTTGT GGTGGGAGAG CAGAGGTGGA 180  
CGNGGCCGAG AGCCCTACAG AGAAGCTGGC TGGTAGGACC CGCAGGACCA GCTGACCAGG 240  
CTTGTGCTCA GAGAAGCAGA CAAAACAAAG ATTCAAGGTT TTAATTAATT CCCATACTGA 300  
TAAAAATAAC TCCATGAATT CTGTAAACCA TTGCATAAAT GCTATAGTGT AAANAAATTT 360  
AACCAAGTGT TACTTTAAAC AGTTCGTACA AGTAATGNTT ATAATTCTAA A 411

SEQ ID NO:2101

LENGTH:408

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02403

SEQUENCE DESCRIPTION:

GATCTGGAAA GCTTGAGCCT CCTTGGGTTT GTCTACAAAT TGGAAGGAAA TATGAATGAA 60  
GCCCTGGAGT ACTATGAGCG GGCCCTGAGA CTGGCTGCTG ACTTTGAGAA CTCTGTGAGA 120  
CAAGGTCCTT AGGCACCCAG ATATCAGCCA CTTTCACATT TCATTTTATT TTATGCTAAC 180  
ATTTACTAAT CATCTTTTCT GCTTACTGTT TTCAGAAACA TTATAATTCA CTGTAATGAT 240  
GTAATTCTTG AATAATAAAT CTGACAAAAT ATTAGTTGTG TTCAACAATT AGTGAAACAG 300  
AATGTGTGTA TGCATGTAAG AANGAGAAAT CATTGTATG AGTGCTATGT AGTAGAGAAA 360  
AAATGTTAGT TAACTTTGTA GGAAATAAAA CATTGGACTT ACATAAA 408

SEQ ID NO:2102

LENGTH:397

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02404

SEQUENCE DESCRIPTION:

```
GATCCGAGAG GTGGCCAACA AAGTCAAGGT CCCCTGCTG GATTAGGCA GCCCCCACT 60
GGCCATGCAC TCTATCCGGN AGATGGCCTG CACCACAGGA GTCCTCCANA CCCTNACCCT 120
CTTCAAGGGC TTCTTTAAGC TGTTCCCTTC TCTAAGCCAT AATCTCTNAG TGGATTGAGC 180
CCTCTTGGA AGACTTCTCT GCCATCCCTT TGCACCTGAN AGGGGAAGTT CTCAGCTGAG 240
CTGAAGCTGG ATTATTAAAG TGGATTGTAA CTCAGACTCT CCGTGCTACG CTTATTTGGA 300
GACTAGAGGA GTGGGAGTTG AGCCTGGCTT GAACCTTTGG AACCAGAAAA GTTGGGGAGC 360
AGGTGGAGGA GGCCCACTC CTGGGAGCTT GATGGTN 397
```

SEQ ID NO:2103

LENGTH:219

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02406

SEQUENCE DESCRIPTION:

```
GATCAGCCCT TTTTCCCATC CTGCCCTATG GTTCTCTAGC CACCTGTGCA TGCATGTGTA 60
TTTCTGCCTN GTTCTATGGT GTGTGGATGT GTGTGCATGA ATCTGTCATA TAGAGGGGGT 120
CCGAGCTGGA ATCCTAGAGC ATTGTGCCC TGGGGCCTGA TGTCTTGGC TTCCTCAGAG 180
CATGTAACAG GAAATTAAAT GGGATGAGTG TTTGGTAAA 219
```

SEQ ID NO:2104

LENGTH:380

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02408

SEQUENCE DESCRIPTION:

```
GATCCTACCT CCAACTCCTG ACTCTATAGG TCTCACTCTT TTTTATTGT CCTANNNTA 60
CATAACATAA AATTATATAA TTTAATATTC TAGGGTATAG TTCAGTGGTA TTAAGTACAT 120
TCACACTGAT GTGCAACCAT CATTATCATC CATTCCCAA ACTTTTCATC ACCGCAAATA 180
GAAAAGCTGT ACCCATGAAA CAATAACTTC CATTGCCTCC CCCTCAGCCT TTGGTAACCT 240
CTATTCTACT TTCTGTTTCT ATGAATTTGA CTGTTCTAGG TACCTCATAT AAGTGAATC 300
ACACAATATT TGTCCCTTTG TGTCTAACTT ATTCACCTA GCATGTTTC AAGATTTATC 360
TGTACTGTAC CATGTATCAN 380
```

SEQ ID NO:2105

LENGTH:378

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02409



## SEQUENCE DESCRIPTION:

GATCTGTGCT CTCCTAGCCC AAGAGACCCC TGGAGGGGCT GGAGTTTAT CCAGCGNCTC 60  
 GTCGTATGTT TGGCTGAGCA CCTGTGGCCT GGGTGCAGGT TAACTTCTTG TTATCAGGAG 120  
 CCCACTATGC AGAGGCCAAA GGTGGGCAGC CAGCGAGGCT ATGAATTGGA CCTTTTGGT 180  
 ATCTGTGTNA CTGNTCTGTG NCCATNCTTA GNCAACTTGC TGGCGTGACA AGTGCCACA 240  
 AGTAACACAC CAGGTACCCA GAGNAGGGTG GACAGGAGAG ACCTGAATNA CAGCAGTANG 300  
 GAATTCCTCA ANGNTGTGNC CTCGCCATG AANTTGTTC AANTTGAAGG TNANNAGGGN 360  
 CACCAATCAG GGTGAGN 378

SEQ ID NO:2106

LENGTH:374

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02411

## SEQUENCE DESCRIPTION:

GATCCAGAAG TACAAGGTGG TCCTGGCCCC GGAGACGGNG GAGTTGAAGA GTGTGGCCCG 60  
 CATTGTCTTG GTTCCCAATA AGAAAGTGGG CCTGCAGTTC CTGCAGAGAC AGTGCTGAGC 120  
 TGAGTCTCCG CCTTGTCTGG GCTTGTCTTA GAGGCTCCAG CTCTGGCACA GTGGTTCCTG 180  
 GCTGCTGCCA TGTCTCANAT GAGGAGGGAG AGAAGGAGGC CGCCAGACTC GAGAGGTGGG 240  
 AGGAACCTCT TGCACACACC CTGAGCTTTT GCCACTTCTA TCATTTTGA GAACTCCCTC 300  
 TCAGCTAAAA GGCCACCCTT TTATCGAATG CTGTCCTTGG GAAGATATAA AATAAAGGGC 360  
 TTTTATTCT TAAA 374

SEQ ID NO:2107

LENGTH:369

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02412

## SEQUENCE DESCRIPTION:

GATCCAGCCC GACCTGCGAG ANTGATGGAG ACCATGCACC GCATGAGCCA CCTCCCACCC 60  
 GACTTTGAGG GCCGCCAGAC GGTGAGCCAG TGGCTGCAGA CCCTGAGCGG ATGTCGGCGT 120  
 CAGATGAGCT GGACGACTCA CAGGTGCGTC AGATGCTGTT CGCCTGGAGT CAGCCTACAN 180  
 CGCCTTCANC CGCTTCCTNA TGCCTGAGCC CGGGGANTAG CCTTGNACAG CCGGGAGAGT 240  
 CTGAGGCNTG GTCCTGGTCC CTGTCCGCAN AGAGGCCGTG NNATCACANA GCTANTGTCT 300  
 GAGTGGCTGT CTGNTCTGTC TTTGGGTAAG ACTTTGGGGC CGGCCTCCCA NAATAAGGTG 360  
 TCTCGGAAA 369

SEQ ID NO:2108

LENGTH:368

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02413

## SEQUENCE DESCRIPTION:

GATCAGAGCC AAGAAGCGTC TCGGCAGAG TGGGAAGAG TTGCCGCCAA CCTCCTAGGC 60  
 GCCCCGCCA GCTCCCTTTG ACCCTGGGG CAGGGCAGGG GGCAGGGAGA GACAAGGCTG 120

CTGCTATTAG AGCCCATCCT GGAGCCCCAC CTCTGAACCA CCTCCTACCA GCTGTCCCTC 180  
 AGGCTGGGGG AAAACAGGTG TTTNATTTGT NACCGTTGGA GCTTGGATAT GTNCGTGGCA 240  
 TGTGTGTGTN TGTGTNANAG TGTGAATGCA CAGGTGGGTA TTTAATCTGT ATTATTCCCC 300  
 GTTNTTGGAA TTGNNTTCCC CNATGGGNCT GGGGTACTTT ACATTCAATA AATACTGTTT 360  
 AACCCAAA 368

SEQ ID NO:2109

LENGTH:368

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02414

SEQUENCE DESCRIPTION:

GATCACAGGA AGTGGAGGAG CCAGAGGTGC CTTTGTGGAG GACAGCAGTG GCTGCTGGGA 60  
 GAGGGCTGTG GAGGAAGGAG CTTCTCGGAG CCCCCTCTCA GGCTTACCTG GGCCCCCTCT 120  
 CTAGAGAAGA GCTCAACTCT CTCCCAACCT CACCATGGAA AGAAAATAAT TATGAATGCC 180  
 ACTGAGGCAC TNAGGCCCTA CCTCATGCCA AACAAAGGGT TCAAGGCTGG GTCTAGCGAG 240  
 GATGCTTGAA GGAAGGGAGG TATGAGACCG TAGGNANAAN GGCACCATCC TCGTACTGTT 300  
 GTCACTATGA GCTTAAGAAA TTTGATACCA TAAAATGGTA AAGACTTGAA AAAAGTANAA 360  
 NATGTTTN 368

SEQ ID NO:2110

LENGTH:368

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02415

SEQUENCE DESCRIPTION:

GATCTTGGTT TTGATGTGGA CATAGGCCCT CTTTCCAGA CTCCTCGTGA AGTGGCCAG 60  
 CAGGCTGTGG ATGCGGATGT GCATGCTGTG GCGGTAANAC CCTCGCTGCT GGTCATAAAA 120  
 CCCTAGTTCC TGAATCATC AAAGAACTTA ACTCCCTTGG ACGGCCAGAT ATTCTTGTC 180  
 TGTGTGGAGG GGTGATACCA CCNTCAGGAT TATNAATTC TGTTTGAAGT TGGTGTTC 240  
 AATGTATTTG GTCTGGGAC TCGAATTCCA AAGGCTGCCG TTCAGGTGCT TNATGATATT 300  
 GAGAAGTGT TNGAAAAGAA GCAGCAATCT GTATAAAATA AAAATATCAC AAGAGAACAC 360  
 CTGTACTN 368

SEQ ID NO:2111

LENGTH:365

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02416

SEQUENCE DESCRIPTION:

GATCGAAAGA AATCTAAGTG ATACGGCCCA ATGAAGCTAA AATATAGCCT TCTGTTAAGC 60  
 AAATAGTATT TCCTTTCCCC AAGTAGTTCA TTTCTAGAT GCTTGTCAAA TGAATTAATG 120  
 TCCTCTGATG AAGAGTGTCC TTCCGTTTCT AAGGTCTTCT CAATCTCAGC AATAGAGCTT 180  
 CCCAGCAGCG TTCAAGACAC ATCATTTATA CACAGGCACA GGGGCCCTTC TGAATGGGT 240  
 GCATTTTTAC CAACTACAA CATGTAATTT TTTTGAAAT TTTTAAAAT TTTCGNTNCT 300

2153480

TTACATTACA ATTGGGTGAA ACACATTTTA CAGCTCTCAA TAAATGTTTG CTGGTCGCTC 360  
TGAAA 365

SEQ ID NO:2112

LENGTH:363

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02417

SEQUENCE DESCRIPTION:

GATCAACGAT TACGTGGAGA AGGGTACTCA AGGGAAAATT GTGGATTTGG TCAAGGAGCT 60  
TGACAGAGAC ACAGTTTTTN CTCTGGTGAA TTACATCTNC TTTAAAGGCA AATGGGAGAG 120  
ACCCTTTGAA GTCAAGGACA CCGAGGAAGA GGACTTCCAC GTGGACCAGG TGACCACCGT 180  
GAAGGTGCCT ATNATGAAGC GTTTAGGCAT GTTTAACATC CAGCACTGTA AGANGCTGTC 240  
CAGCTGGGTG CTGCTGATGA AATACCTGGG CAATGCCACC GCCATCTTCT TCCTGCCTGA 300  
TGAGGGGAAA CTACAGCACC TGGAAAATGA TTGACCAAAA TACCAAGTCT CCCCTTCTTC 360  
ATN 363

SEQ ID NO:2113

LENGTH:362

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02418

SEQUENCE DESCRIPTION:

GATCCCAGTC GCATACCAGG TGTCTCCTC CAGGTCGTGA ACGGCAAAGG CACTGCCCGC 60  
ATCGCCATAG CAGGTGTCTT CTTGGTACTT AGACATGCCA GCACAGAAGG TGTGTTTATT 120  
CAGTATGGGC TGCACCCCTA CAGGGCTCTT CCGTGTCTTC CATCCAGGAC TGGGTTCAGA 180  
AGACCATAGC TGAGAACTAA TGCAAGGCTG GCCGGAAGCC CTTGCCTGAA AGCAAGATT 240  
CAGCCTGGAA GAGGGCAAAG TGGACGGGAG TGGACAGGAG TNGATGCGAT AAGATGTGGT 300  
TTGAAGCTTG ATGGGTGCCA GCCTGCATTG CTGAGTCAAT CAATAAAGAG CTTTCTTTT 360  
GN 362

SEQ ID NO:2114

LENGTH:362

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02419

SEQUENCE DESCRIPTION:

GATCNGACAG GCACCAGCAA TGACACAGCA TAAACTGTTG GGCACAGGAA AGAGGCTTGA 60  
CACCACCAGC CCACCAGGAA ATGCAGTTCA GCCACCACGA GGACACGAGG AACCTGCACC 120  
ACAGCCGCAG TCAAGAGAAT GCTGGTGGTG CCAAGNTGCA GGGTGTGGCC TGCTGGAATG 180  
GAAGCGCATG GTGGTNNCTA TAAAGTCAAT GNCACAGCAC ATGCCAGCA ATCCACTGTG 240  
GGATTNGA TGANACTANG CNCATAAAAC TGTNCGAATT TTNCTGTGCT TTTCATATCN 300  
TCAATNTGAA TCAANTGCTT CATTGGGTAC TGTAAGTGTG GNTACTTNAG TGAATCTCTN 360  
TN 362

00824

SEQ ID NO:2115

LENGTH:355

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02420

SEQUENCE DESCRIPTION:

```
GATCATATAG TAGGTTTAGG TTTAACTTTT TAAGAAATTG CCAAGCTTTT CCAAAGTGGC 60
TGTCCTCTT TACATTTCCA CCAGCAATGT ATAATGAATG GTTCAGGTTT CTCCACATTC 120
TTGTCGGCAC TTGGACTTTT CTGTTTGTG GTAGCCATTC TAGTGGATGC AAAGTGGCAT 180
CTCATTATGG TTCATTTGCA TTTCTCTGAC AACTAATGAT TTTGAGCATC TTCATGCGAT 240
TGTTAACCAT TTGTATATCT TTAGTGAAAT ATCTATTCAA TTATTGCCCA TTTTAAATT 300
GGNTCACATG GCTNATTAAT GNATTGTAAG AAAGGTTTAC ATATTCCTGG ATACN 355
```

SEQ ID NO:2116

LENGTH:350

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02421

SEQUENCE DESCRIPTION:

```
GATCATGATT TTGTAGTACA GGAAGACTTC ATGAAAGCAG TCAGAAAAGT GGCTGATTCT 60
AAGAAGCTGG AGTCTAAATT GGACTACAAA CCTGTGTAAT TTAGTGTAAG ATTTTGATG 120
GCTGCATGAC AGANGTTGGC TTATTGTAAA AATAAAGTTA AAGAAAATAA TGTATGTATT 180
GGTAATGATG TCATTAAGAG TATATGANTA AAAATATGAG TAACATCATA AAAATTAGTA 240
ATTCAACTTT TAAGATACAG AAGAAATTTG TATGTTTGT AAAGTNGCAT TTATTGCAGC 300
ANGTTACAAA GGGGAAGTGT TGAAGCTTTT CATATTGCT GCGTGACATN 350
```

SEQ ID NO:2117

LENGTH:375

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02422

SEQUENCE DESCRIPTION:

```
GATCCGCAGN CAGAAGCTCT GCCCTTCTGT ATCCTATGTA TGCAGTGTTN TTTNCTTGC 60
CAGCTTGGGC CATTCTTGCT TAGACAGTCA GCATTGTNT CCTCCTTTAA CTGAGTCATC 120
ATCTTAGTCC AACTAATGCA GTCGATACAA TGGTAGATA GAAGAAGCCC CACGGGAGCC 180
AGGATGGGAC TGGTCGTGTT TGTNCTTTN TCCAAGTCAG CACCCAAAGG TCAATGCACA 240
GAGACCCCGG GTGGGTGAGC GCTGGCTTCT CAAACGGCCG AAGTTGCCTC TTTTAGGAAT 300
CTCTTTGGAA TTGGGAGCAC GNTGNNCTCT TGAGTTTGA GCTTTTAAAA GTACTTTNTT 360
TACCACATTT GGAAA 375
```

SEQ ID NO:2118

LENGTH:339

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02423

## SEQUENCE DESCRIPTION:

GATCTCTAAC CAGAAATAAA CAGGAAGACT CAGTNGTTTA CAAAAGACAT TTTAGTTTAA 60  
CACGTACAGA AAATTCTACC CNGGCATTAC AGAATTCTTA GACTTCTTAA ATTCCTGATT 120  
TTCCTTGGTA TTTACATTTT GATAAGGGAG CCAATGGTTC TTCAAACATT TGAAAAGAAC 180  
ACATACACAC TGGACAATTT CAAACGNTAC AAACAAACGC AACTGTCCTT CTTTCTCATT 240  
CCTGTCCTTC AGCCACCCAG TTTCTTCTCC CCTGAGGGAA TCAGTTATCA TTNGCTGGGT 300  
CATACTTCCA GATTATCCTG TGCCTATGTA AGTGTGTGN 339

SEQ ID NO:2119

LENGTH:334

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02424

## SEQUENCE DESCRIPTION:

GATCTGGGAC GTNACGAGT NAGGGGCTGG CCACCCAGCC CACAGCCTTG CCTGACCACC 60  
CTCCAGCAGA TAGACGCCGG CACCCCTTCC TCTTCCTAGG GTGGAAGGGG CCCTGGTN 120  
NGCCTGTAGA CCTATCGGNT CTCATCCCTT GGGATAAGCC CCAGTCCAGG TCCAGGAGGC 180  
TCCNTCCCTG CCCAGCGAGT CTTCCAGAAG GGGTGAAAGG GTTNCAGGTC CCGACCACTG 240  
ACCNTTCCCG GGTGNCCTCC CTCCCANCT TACACCTNAA GCCCAGCACG NAGTAGNCTT 300  
TGAACAGAGG GAGGGAAGGA CCCATGGGTC TCCN 334

SEQ ID NO:2120

LENGTH:330

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02425

## SEQUENCE DESCRIPTION:

GATCAAAGAG AAAATAAAAA ATCGCTACTT CCCTGCCTTT GAAAAAGTCT TAAAGAGCCA 60  
TGGACAAGAC TACCTTGTG GCAACAAGCT GAGCCGGGCT GACATTCATC TGGTGGAAGT 120  
NCTCTACTAC GTCGAGGAGC TTGACTCCAG TCTATCTCC AGCTTCCCTC TGCTGAAGCT 180  
CTCCAGGACA CTGGCCCCC AACTGTATC TCTCACTGAG AAAAGGTGGT CCCATGGCCC 240  
TGAAAACCAG AATNAGCAAC CTGNCCCACA GTGAAGAAGT TTCTACAGCC TNGGCAGCCC 300  
AAGGAAAGCC TCCCATTTGA TGAGAAATCN 330

SEQ ID NO:2121

LENGTH:327

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02426

## SEQUENCE DESCRIPTION:

GATCGAAGTA AAATAGAAAT GGGACTNGCT TTCCACAGGA AGTAAACTGC TTCAGAGCCC 60  
ACAGTCCCCT GCTCAGTGTC CGGAAAGAAG TCAGTCATCC CTGTTGGCAG TAAATCTTCC 120  
CACAGGCCGT CCATTAGAGA TTAACTAGA TATGTTCAAT AGAAAGAGTC TGAGGCAAGT 180  
GGAAATGAGG NNCGGAAACT TAGGTTGGGA GAATATTTT NTNTATTCA TTCTGTTTGC 240  
TTAATTCAGA GTACAGTTTG TGCTATTTC TATCTGTACT CCAGGCAGAA ATATAACTTG 300

AAAATACTGT GTCTAAAGAA ATTTCAN

327

SEQ ID NO:2122

LENGTH:324

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02427

SEQUENCE DESCRIPTION:

GATCCTCGTC ATCAAGGATG GCTGCATCGT GGAGAGGGGA CGACACGAGG CTCTGTTGTC 60  
 CCGAGGTGGG GTGTATGCTG ACATGTGGCA GCTGCAGCAG GGACAGGAAG AAACCTCTGA 120  
 AGACACTAAG CCTCAGACCA TGAACGGTG AAAAAAGTTT GGCCACTTCC CTCTCAAAGA 180  
 CTAACCCAGA AGGGAATAAG ATGTGTCTCC TTCCCTGGC TTATTTTCATC CTGGTCTTGG 240  
 GGTATGGTGC TAGCTATGGT AAGGGAAAGG GACCTTTCCG AAAAACATCT TTTNGGGGAA 300  
 ATAAAAATGT GGACTGGTGC GAGN 324

SEQ ID NO:2123

LENGTH:355

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02428

SEQUENCE DESCRIPTION:

GATCTGAACA TTCAAAGAA AGCTTTGGAA AAAAAGAGCT GGCTGGCCTA AAAACCTAAA 60  
 TATATGATGA AGATTGTAGG ACTGTCTTCC CAAGCCCCAT GTTCATGGTG GNCCNNTGGT 120  
 TATTTGGTTA TTTTACTCAA TTGGTTACTC TCATTTGAAA TGAGGGAGGG ACATACAGAA 180  
 TAGGAACAGG TGTTTGCTCT CCTAAGAGCC TTCATGCACA CCCCTGAACC ACGAGGAAAC 240  
 AGTACAGTCG CTAGTCAAGT GGTTTTTAAA GTAAAGTATA TTCATAAGGT AACAGTTATT 300  
 CTGTTGTTAT AAAACTATAC CCACTGCAAA AGTAGTAGTC AAGTGTCTAG GTCTN 355

SEQ ID NO:2124

LENGTH:324

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02429

SEQUENCE DESCRIPTION:

GATCTCAGAA CTGAAGGCCG CCCTGACATG AAGACTGAGC TCTTTTCCAG CTCATGCCCA 60  
 GGTGGAATCA TGCTGAATGA GACAGGCCAG GGTACCAGC GCTTTCTCCT CTACAATCGC 120  
 TCACCACATC CTCCGAAAA GTGTGTGGAG GAATTCAAGT CCCTGACTTC CTGCCTGGAC 180  
 TCCAAAGCCT NCTTATTGAC TCCTAGGGAA TCAAGAGGCC TGTGAGCTGT CCAATAACTG 240  
 ACCTGTAAC TACTCTAAGT CCCAGATGG GGNACANTGG GGAGNTNGAG TTGTTGGAGG 300  
 GAGGAAGCTT GGAGACTTCC CAGN 324

SEQ ID NO:2125

LENGTH:324

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02430

## SEQUENCE DESCRIPTION:

GATCCATCTT CATCCATTGC ATTGGAACT NCTTTATGCT GCTGCAGTCT GCAAAGTCTA 60  
 GAGCTTTTAT CAGGCCATGT CATACCCAAG AAAGCACCTA TTAAAGAAA AAACAATTCC 120  
 CTGAGCTCTC AACTCCAAGT TGTAGATTG GTGTCTTCCT TGTCTTACT TAAAAAGTC 180  
 ATGTGTTAAT TTTNNTCCTG CCTGTATTG TATGCAAAAT GTCCTCTATC TGCTATNAAA 240  
 GAAAAGCTAC GTAAACCACT ACATTGTANC CTTCTAAGTN ATNTTAATT AGNAGGGNAT 300  
 TATNTTGCAG TACCANTTGG GAAA 324

SEQ ID NO:2126

LENGTH:321

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02431

## SEQUENCE DESCRIPTION:

GATCGTGAAG ACCTGCTGAG CCAGCCTGTT CTCGGGGCCT GAATGTCTGG GGTGCTTGTG 60  
 CCTTTCTGA GAAGCGTTGT GACTGCTCAA CATCCCCATC AAGGTTTGAG TCCACAAAAG 120  
 TGGACCTCCC TATCATGCTT CCCCTTCCCT CTAGCATGTG GGAAGGGACT GCTGTGAAGA 180  
 ATGNCAGATG TGGGGCCTCT GCCAAGTTCT TGCATTGCTA AATAAGGGCT TCCTCTGCCT 240  
 TCTACCTACA GTGCATTGA ACTGCCTTCT GAAAGAGGTC CAGGGAGGGA TTTAGGAAAT 300  
 AAAGNTTCTA CCTATTGAA A 321

SEQ ID NO:2127

LENGTH:319

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02432

## SEQUENCE DESCRIPTION:

GATCCTAAGC GAAGATGGAT TTCAGTTCAT CAAATCATCA TTAATGACTT TATGTATTAT 60  
 TTGCACAGGG AGAATTGAAA CTGAGTATAA TCAATAAGCT AGATACGAAA TCAGTTTCTC 120  
 AAACTGAGCT TCAGAAAGGG GCATTTTGTA CTCTTGTTTT TGCATAACTG GTTTTGTTTT 180  
 TTTGCAGAAAT TAACTATAAC ANTCACTGGC TACCGAAGTA AACTGATGTA CTGAATTCCA 240  
 TAATACATAA CATTCAATTT TTACCACTNC TGTTTAGCGA ACTTGTATAC TTATTCCTG 300  
 TTCAGNTTAA AAAAAGAAA 319

SEQ ID NO:2128

LENGTH:315

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02433

## SEQUENCE DESCRIPTION:

GATCACACCT GAAAGCAGTG GTCCCAGCTC TGTGCTGTGG GACATCACAG GTCCTAAACA 60  
 GTGATAGAGA AAGGGCTGGG GAGTGGCAGC TGGAACTCTCT GCTTCCGTCT GAACATCTGG 120  
 ACACACATGT CAGAGAATCT TTGCATTAAA TGGACTGCCC AATCTATTTG GTGATTAAAT 180  
 GGCTGTGCGG TGAGGGGAGA ACCCTGGGCA GTCTGGAGAC TGAGGTGCCA TTCTCGGCTA 240

GAGACACCAC CCAAAGAAGA GATGGGCTGG CTAATAAGA CAAGTNTCAG TTGAATAAAT 300  
GTCTTTAAAC CTAAT 315

SEQ ID NO:2129

LENGTH:311

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02434

SEQUENCE DESCRIPTION:

GATCATTGTC CCTACAGACA CCCAGAACAT CTTCTTCATG AGCAAAGTCA CCAATCCCAA 60  
GCAAGCCTAG AGCTTGCCAT CAAGCAGTGG GGCTCTCAGT AAGGAACTTG GAATGCAAGC 120  
TGGATGCCTG GGTCTCTGGG CACAGCCTGG CCCCTGTGCA CCGAGTGGCC ATGGCATGTN 180  
TGGCCCTGTC TGCTTATCCT TGGAAAGTGA CAGCGATTCC CTGTGTAGCT CTCACATGCA 240  
CAGGGGCCCCA TGGACTCTTC AGTCTGGAGG GTCCTGGGNC TNCTGACAGN AATAAATAAT 300  
TTCGTTGGAA A 311

SEQ ID NO:2130

LENGTH:309

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02435

SEQUENCE DESCRIPTION:

GATCCCAACT GCTCCTGCGC CGCCGGTGAC TCCTGCAAAT GCAAAGAGTG CAAATGCACC 60  
TCCTGCAAGA AAAGCTGCTG CTCCTGCTGC CCTGTGGGTT GTGCCAAGTG TGCCAGGGC 120  
TGCATCTGCA AAGGGGCGTC GGACAAGTGC AGCTGCTGCG CCTGATGCTG GGACAGCCCG 180  
CTCCAGATG TAAAGAACGC GACTTCCACA AACCTGGATT TTTTATGTAC AACCTGACC 240  
GTGACCTTTT GCTATATTCC TTTTCTATG AAATAATGTG AATGATAATA AAACAGCTTT 300  
GACTTGAAA 309

SEQ ID NO:2131

LENGTH:307

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02436

SEQUENCE DESCRIPTION:

GATCCTGGCC TCGCAGTTCC TATCCCNTGA CCCAGAACAG CTCACCAAGG AGCTGCAGCA 60  
GCATGTGAAG TCACTGCAGC CCATACAAGT CCCAAANAAG ATAGAGTTTG TTTTGAACCT 120  
GCCAAAGCTG TCACAGGGAA ATTCAACAGA CCAAACCTCG NGNCAAGGAG TGGAAGATGT 180  
CCGGAAAAGC CCGTNCGAGT GAGNCGTCTA GGAGCATTCA TTTGGATTCC CTCTTCTTTC 240  
TCTTTCTTTT CCCTTTGGGC CTTGGCTTAC TATNATGATA TGAGTCCTTT ATGAAGACAT 300  
GATGAAA 307

SEQ ID NO:2132

LENGTH:306

TYPE:nucleic acid



TOPOLOGY:linear

CLONE:HUMGS02437

SEQUENCE DESCRIPTION:

```
GATCCTGGTG GCGACCATGG AGAGGAACT GGAGGGCAGG GATGGAGCTG AAANCTTGGC 60
GGCCCAGAGA GAGGTCCACC CCAAGCAGCC TGAGCCCTCA GCCACCCCCC AGCTCCCTGG 120
CAGCTCCCCT CCACCTGCCA ATGTCAGCGC CACACTGGTG TCTGAAAGGA ATAAGGAGAA 180
CAGGACAGAC TAACTTTTAA AATGATATGA AGAAATCAGA GGTGAAAATT GTACATTGGG 240
AATATATTTA TGCAAATTTT ATTGAAATTT ATTGTAAATA AAGATTTTCT CAGTGGTCTA 300
GANAAA 306
```

SEQ ID NO:2133

LENGTH:306

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02438

SEQUENCE DESCRIPTION:

```
GATCTGGGCT GGTCCCTTTC CCATAAAATN AGGTCCCTGG TTGTATGTTT CCATAGCACC 60
CCATACTTCC TCTCTNAGAA TAATCATTTT CCTTGTAATG CTCAGCATCC GCATCCTGCT 120
TGACTGCAAA CTTGCTGAAG GTAGGGACTG TTTGTCTTGG ACTTCGCTGC CAGTCCTTAG 180
AACAGTGTCT GGGACACAGT GTGTTCTCAA ATATTTGTTG CTGGAATAAA TGAATGACCT 240
AAATCAGTCT TTTAGGGATT TACTGTAAAC CACCATGGGA AAATTAATAA AATGCGGGGA 300
AGGAAA 306
```

SEQ ID NO:2134

LENGTH:305

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02439

SEQUENCE DESCRIPTION:

```
GATCTGACCC CACAGCCTTT GGCCTGCTCA CCGGACCAGC CTGGGCCGCA TTCCCTGCAG 60
GACCTCCCGG GTCAGGCAGG GCGCCCCCT GCTCCACACA CTGCTGCATC TTGGGTCTCA 120
GGGACCCAGA CAGATGGACT TACATGGAGC TGGGCACTGC CCTGCCTCAA CAGGGTCCAT 180
TGCCTCCTCG CCTCCAGAAC TTGGAGCAGG GAAGTGGGCA CCCTGAGGCC TCCAGCACCA 240
GTTCCGTCAT TCTCGTTCCT GGGGAACCCC CACTCTGACC TGTATTAAAT GTTCACATTT 300
TGAAA 305
```

SEQ ID NO:2135

LENGTH:251

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02441

SEQUENCE DESCRIPTION:

```
GATCAACCTG AGAAAAATTG CTGAGCTCAT GCCAGGAGCA TCAGGGGCTG AAGTGAAGGG 60
CGTGTGCACA GAAGCTGGCA TGTATGCCCT GCGAGAACGG CGNGTCCATG TCACTCAGGA 120
GGACTTTGAG ATGGCAGTAG CCANGGTCAT GCAGAAGGNC AGTGAGAAAA ACATGTCCAT 180
```

CAAGCANTTA TGGANGTGAG TGGACAGCCT TTGTGTGTAT CTCTCCAATA CAGCTCTGTG 240  
GGCCAAGTAA A 251

SEQ ID NO:2136

LENGTH:301

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02442

SEQUENCE DESCRIPTION:

GATCTGCATC CCCAAAAGTA TCACTCCTTC TCGAATCCTT CAGAACATCA AGGTGTTTGA 60  
CTTCACCTTT AGCCCAGAAG AGATGAAGCA GCTAAATGCC CTGAACAAAA ATTGGAGATA 120  
TATTGTGCCT ATGCTTACGG TGGATGGGAA GAGAGTCCCA AGGGATGCAG GGCATCCTCT 180  
GTACCCCTTT AATGACCCGT ACTGAGACCA CAGCTTCTTG GCCTCCCTTC CAGCTCTGCA 240  
GCTAATGAGG TCCTGCCACA ACGGAAAGAG GNAGTTAATA ANNGCCATTG GANGCATNAA 300  
A 301

SEQ ID NO:2137

LENGTH:302

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02443

SEQUENCE DESCRIPTION:

GATCCGAGAG GGCATGGCCG CCCTGCAGTC TGACCCCTGG CAGCAAGAGC TCTACCGCAA 60  
CTTCAAAAGC ATCTCCAAGG CTTGGTGA GCGGGGTGGT GTGGTCACCA GCAACCCACT 120  
TGGCTTCTGA ATACTCCCGG CCAGGGCCTG TCCCAGTTAT GTGCCTTCCC TCAAGCCAAA 180  
GCCGAAGCCC CTTTCCTTAA GGCCCTGGTT TGTCCCGAAG GGCCCTAGTG TTCCAGCAC 240  
TGTGCCTGCT CTCAAGAGCA CTTACTGCCT CGNAAATAAT AAAAATTCT AGCCAGGTCA 300  
AA 302

SEQ ID NO:2138

LENGTH:297

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02444

SEQUENCE DESCRIPTION:

GATCATCCAG AAGGAGCCCG TTGAAGTGGC CCCAAGCCAG CTCTCTGCAT TTCGTACTCT 60  
CCTGTTTTCT GCCTTGGTG AAGAGGAGAA GATGATGGTG AACAACATC GCCCACTTCA 120  
ACCTTGATG AACCGGAAGG TCTGGGCGTC CTTCCAGGCC ACTAATGAGG GCACAAGGTC 180  
CTAGAGACAT TAGGTCCACA TGAATAGCAG AACTGACTTT GAAGGAAGGA AGCGTTGTTT 240  
CCCAAGTTTC ACAATGTGAT TGTACATGAC TTCTGAAATT AAAAAGAGAG CATGAAA 297

SEQ ID NO:2139

LENGTH:295

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02445

## SEQUENCE DESCRIPTION:

GATCTATGCC AGCAAAACAT CATTTTGAGA CAAACATTTT TGTGGCAGAT GTTTTCTTA 60  
 AAAAGTACTA TATCATCCAA GAAATATTG AGTAAATCC CTGTCTTTT TGGGTGACAT 120  
 TAACGACAT TTGCTTTTTT TCAAGACCTA ATAGAAAATA AGAAAGCCA TAATGTATT 180  
 AGAAACAGGA ATCCTCAGAG CAATTCTCTG TATTCTCATA TAATTCAAT GTAAACAGA 240  
 AAACATATTG ATGTGTTGGT GATAGGCTTG AATTATTAAA AACTTCAAAA ACAA 295

SEQ ID NO:2140

LENGTH:294

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02446

## SEQUENCE DESCRIPTION:

GATCGAGGCT GCAGGATATG CTCAGACTCT AGAGGCGTGG ACCAAGGGGC ATGGAGCTTC 60  
 ACTCCTTGCT GGCCAGGGAG TTGGGGACTC AGAGGGACCA CTGGGGCCA GCCAGACTGG 120  
 CCTCAATGGC GGACTCAGTC ACATTGACTG ACGGGGACCA GGGCTGTTT GGGTCGAGAG 180  
 CGCCCTCATG GTGCTGGTNC TGTGTGTGT AGGTCCCCTG GGGACACAAG CAGGCGCCAA 240  
 TGGTATCTGG GCGGANTCAC AGAGTTCTTG GAATAAAAGC AACCTCAGAN CAAA 294

SEQ ID NO:2141

LENGTH:292

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02447

## SEQUENCE DESCRIPTION:

GATCTGGTTG GTGGATGAAC AAGTGTACAG CTGGACATCT CAATGGNGTT TATTACCAAG 60  
 GTGGCACTTA CTCANANGCA TCTACTCCTA ATGGTTATGA TAATGGCATT ATTTGGGCCA 120  
 CTTGGANAAC CCGGTGGTAT TCCATGAAGA ANCCACTATG AAGATAATCC CATCAACAGA 180  
 CTCACAATTG GAGATGACAG CAACACCACC TGGGGGGAGC ANACAGGTGG AGACGTAAA 240  
 NGCCGTTTAN TGNGTTTCT NTTTAAAGNC TTTATCTGAC CNGGGGTANN GN 292

SEQ ID NO:2142

LENGTH:280

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02448

## SEQUENCE DESCRIPTION:

GATCGGAAAA AAATTCTTGA ACGCAAAGCC AAGTCTCGAC AAGTTGGAAG AGAGAAAGGC 60  
 AAATATAAAG AAGAACTTAT TGAGAAAATG CAGGAATAAA TAGAACCTGT TGTGCAACCA 120  
 CGGTTTAAAC GGAGATTTTG AGGCTAGGGT GTGTTTCTTT CGAACTTTT GGAATGTCTG 180  
 GAACATTTCA TTTCTGTTT TGTACCTGT GCCTCTGTAA ATCTACTTTT GCAATTTTAA 240  
 GTAATAATTT TATGAATAAN AATGGGAAAT GCTTCCTAAA 280

SEQ ID NO:2143

LENGTH:280

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02449

SEQUENCE DESCRIPTION:

```
GATCCCATAA CAGGCTACCC CTTGGCCTCA TGCTGGAGTT GTGTGTGTCT GTCTTCATCC 60
CAGGCTGAGC TCCTTGAGGT GAGGATGTTG TGCTGTTGTC CTCCCTCACA GTGCCTTGGT 120
CTTAGTGGAT GCCCAGTTGT CTTGTGAATG ACTTTTAAGA AGTGTACTTA AGAGAAAAAT 180
CCTACCNAT NNNNGTAAT TACAAGTCAT GTTTTGTNG CTAAAGGTG ATAAATCAGT 240
GTATATNATN NGNTAATGTC CATTAAAGCC AGTTTTTAAA 280
```

SEQ ID NO:2144

LENGTH:278

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02450

SEQUENCE DESCRIPTION:

```
GATCCTAGAG CCTGACGTTT AGTGAACCCA TGTTCCTGGG TGGGTGAAAG GGGCCCAACC 60
CTGCCCATT CAGCCAGCC CGCCAAGGG GACTTGTGCC AGCAGAACAT GTNGGAGGAA 120
GAAGCCCCGT TTCCAGGGCA TCCGCAGCCC AGGGTAGGGA GAAATATTCT CTCCACTTTG 180
GGGGAGAGTT CTTGCTCTCG ACCTAGTGGT TTCTACTCTC ACCGACTTAT TCTGATTTC 240
GAAATAAAAT GAAATGTCTT ATTTTGGGA AAGTTAAA 278
```

SEQ ID NO:2145

LENGTH:315

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02452

SEQUENCE DESCRIPTION:

```
GATCCCACTG GGGCCTNTGG GAAGNGACA GACTTATNAC TAGATGATTC GCTGGTGTCC 60
ATCTTTGGGA ATCGACGTCT CAAAAGGTTA TCCATGGTGG TACAGGATGG CATAGTGAAG 120
GCCCTGAATG TGAACACAGA TGGCACAGGC CTCACCTGCA GCCTGGCACC CAATATCATC 180
TCACAGNTCT GAGGCCCTGG GCCAGATTAC TTCCTCCACC NNTCCNTATC TNACCTGCCC 240
AGCCCTGTGC TGGGGCCCTG CAATTGGAAT GTTGGCCAGA TTTCTGCAAT AAACACTTGT 300
GGTTTGGGG TCAAA 315
```

SEQ ID NO:2146

LENGTH:275

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02453

SEQUENCE DESCRIPTION:

```
GATCCCAGGA CCATTTGGCT AGTGTGCCTA GGTGACCACA TGATTGCTGT TTTACCAGGA 60
ATGCAGCATC CCATTGACAA AACAAGTGCT CTGAGAAGGT TTTAAATACT ACAGNGAATA 120
TGGGANCACA GNCCTTGAAA TTTAGCTGAG TTGTAACAGC TGAAACTCCA AGAGGTGTCT 180
```

TCCTTGTTN GAGGTGNACT AGTGTGCTT CCAGAGGGCA GCTTGAAACC CGTAAAGCCT 240  
GTTTTGGGGA ATCCTTTTTT GNCTTGCTTT GNTTN 275

SEQ ID NO:2147

LENGTH:274

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02454

SEQUENCE DESCRIPTION:

GATCATCAAT GATTTATTGG CACGTTCTAT TGGGATGGTC GAAGTTAATA CAGTAGACAA 60  
ATACCAAGAT AAGGGACAAA AGTATTGTCC TAGTATCTTT TGTTAGAAGT AATAAGGATG 120  
GAACTGTTGG TGAACCTCTG AAAGATTGGC GACGTCTTAA TGTTGCTATA ACCAGAGCCA 180  
AACATAAACT GATTCTTCTG GGGTGTGTGC CCTCACTAAA TTGCTATCCT CTTTGGAGA 240  
AGCTGCTTAA TCATTAAAC TCAGAAAAAT TAAA 274

SEQ ID NO:2148

LENGTH:266

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02455

SEQUENCE DESCRIPTION:

GATCGCAGAG AAGGCAGCTG ACATTATCAA GGGGCAGCCT GCACTCTGGG ACAAAGATGT 60  
CCCTGTCTAC AAGCCCAGGA CGCTGGCCAC CCAGCGCTAA GACAGTTGCT GCTGGAGGAT 120  
GACCAGGGAA GCCCCCTGAT AAGCCAAGAG GGCCAGCACA GCCCTTGCTC CCAGGCTCCT 180  
GCCTGAAACT ATCTAGCACA CTAGGACCCA GGTGGTACCC TACTCAGTGG CTGAGAATTG 240  
GATAAAGTCT TGGGAAATGA GACAAA 266

SEQ ID NO:2149

LENGTH:265

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02456

SEQUENCE DESCRIPTION:

GATCTTTAAC AAATGTTTAA AGCAATTTTA AAAAGGCAGG ATGTTATTGA CATTATACAC 60  
TGAAGTCTTA ACATTTTAAC ATTTATAGTG CTTATTGCA AAATTGTATA ATTAGGAATT 120  
ATTCAGAGA CAATGTTTTC TTTTTCAGGT GAGTAGTTGC CGCGTAATAT CATTGGAGTA 180  
CATTCTTTAT ACTGTTTGTG AAATTAATAC TAGCATATTA AGTGTAACAA TAGATTTAGA 240  
AAACAATAAA AAATTGCATG CTAAA 265

SEQ ID NO:2150

LENGTH:264

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02457

SEQUENCE DESCRIPTION:

GATCCTAGTG TTTAATTAC CTGTGTGCAG CTATTTTAAA TAGCATTTTA CTTGAATAAT 60  
 ATGTATGTTG TCATTGTTTC ATGCTATACT TTGTGGGATA AAAGTTGGGA ATGAGTGTGG 120  
 TAAGAAATTT ATAAAGTTTT GCTTTTAAAA CGTGGACATA ACTCATTTTT CTAGTTTTTG 180  
 ACAATTGTGT GTTTTAGTGT CTAGTCTGCA GAGAGCTGTG TGATTAATAA ACGTGGAATT 240  
 AACAGAATTT CCTCTCCCTG TAAA 264

SEQ ID NO:2151

LENGTH:259

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02458

SEQUENCE DESCRIPTION:

GATCCTGGGC TCATAGGCAG TCCCTTTCAC TTCCTTGTCT TGCTCCCTGC TATGCTGGAG 60  
 ATGAATGTGA CTAAGAGGCC CATCTTGCTG GCTTAATGTG TGGCTGGAGA GACCAGCCTG 120  
 GAGACAATGT GGCAAAATGG GGCCTTCAT CCAGTCTGTC TAAGCCCTGT CGACTTGGGG 180  
 AGGTGATTTT TTTCTGGTT CTATATGTNA AGCAAAATAA ATGTTTTAAA ATTAAGCA 240  
 NNAAAGCAGA ATGTGAGTN 259

SEQ ID NO:2152

LENGTH:255

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02459

SEQUENCE DESCRIPTION:

GATCAAAGCT GGACTGGAAA TTGTATCGTG TAATTATTTT TGTGTTCTTA ATGTTATTTG 60  
 GTACTCAAGT TGTAATAAC GTCTACTACT GTTTATNCCA GTGTCTACTA CCTCAGGTGT 120  
 CCTATAGATT TTCCTTCTAC CAAAGTTCAC TTCACANTG AAATTATATT TGCTGTGTGA 180  
 CTATGATTCC TAAGATTTC AGGGCTTAAG GGCTAACTTC TATTAGCACC TTAGTGTGA 240  
 AGCAAAATGTT ACAA 255

SEQ ID NO:2153

LENGTH:248

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02461

SEQUENCE DESCRIPTION:

GATCTGTGCA GCAAAGCACC ATGGTACATG TNNTACCTAT GTAACAAACC TGCACATCCT 60  
 GCACATGTAC CCTGGAACCT AATAAAAGTT GGAAATTTT AAAAGAATG AATAAGACCT 120  
 GGTATTTGAT AGCACAACAG GGAGACTATA GTCAACAGCA ATTTAATTGT ATATTTAAT 180  
 ATGACTAAAA GAGTATAATG GNTTGTGTTGT AACACAANTA AATGCTTGAG GGGATGGNCA 240  
 CCCCNA 248

SEQ ID NO:2154

LENGTH:245

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02462

SEQUENCE DESCRIPTION:

GATCTTAAGC TTTGATAAGA GCTGTCCTGT GGCTGAGTAT GGTGTGTATG TNAAGGTGCT 60  
TCCATCCAGG CTGGGTTTCAG AAGCCATAGC TGNGACTAAT GCAAGCTGGC CGAAGCCTTG 120  
CTGAAAGAAG CTTTAGCTGG AGAGGCAAAG TGGCGGGAGT GGCAGGAGTG GATNNGATAA 180  
GATGTGGTTT AAGTNATGGG TNCAGCCTGA TTCTGAGCAA TAATAAAGAN TTTCTTTTGC 240  
CCAAA 245

SEQ ID NO:2155

LENGTH:244

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02463

SEQUENCE DESCRIPTION:

GATCCAGGAA GCTCCCAAAC CAGAGTGTGA GAAGGCACTT CTTGCCTTTC AGGAGAGTAA 60  
GAACCTCTGC GAANCATGGA GAACTTTATG CAACAATTAA AGGAAAGTGG CATGACAATG 120  
GAGGAGCTAA AATATTCTCT GGAGCTGAAG AAAGCTGAGT TGAAGGCAAA ATTGTTGTAA 180  
CACTACAGCT GAGCAGATGT AATAGAAATA AACCTATGAA TAAATTTNCT TCTTGTTTCT 240  
GAAA 244

SEQ ID NO:2156

LENGTH:237

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02464

SEQUENCE DESCRIPTION:

GATCCTATAT CTTGGTNAAT ATGCTCCCAG ATACTTTAAA CATGGCAACC TTTTGGCCTA 60  
AGAGAATGTT TGTTTCATGGA AAAAAGCTTT TGAGATGAGA GGGTGTCTTA CTTTCTTG TG 120  
GCAATTGATT TTCTGTTTAA ACACCCTTTG GGTAATAATCT TGCAAAGAGC TTTTATAATT 180  
NGTTTTACTG AATTGTATGG AGATTGTATA CCAAGTAAAG CTCTTTTAAA TTACAAA 237

SEQ ID NO:2157

LENGTH:234

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02465

SEQUENCE DESCRIPTION:

GATCCACGCT GGGCCGAGGA TGGGACGTTT TTCTTCTTGG GCCCGGTCCA CAGGTCCANT 60  
GACACCCTCC CTCCAGGGTC CTCTCTTCCA CAGTGGCGGG CCCACTCAGC CCCGAGACCA 120  
CCCAACCTCA CCCTCCTGAC CCCCATGTAA ATATTGTTCT GCTGTCTGGG ACTCCTGTCT 180  
AGGTGCCCTT GATGATGGGA TGCNCTTTAA ATAATAAAGA TGGTTTTGAT TAAA 234

SEQ ID NO:2158

LENGTH:233

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02466

SEQUENCE DESCRIPTION:

GATCCCTAAG CTGTAGAACA TTTTAACGTT GATGCCACAA CGCAGATTGA TGCCTTGTAG 60  
 ATGGAGCTTG CAGATGGAGC CCCGTGACCT CTCACCTACC CACCTGTTTG CCTGCCTTCT 120  
 TGTGCGTTTC TCGGAGAAGT TCTTAGCCTG ATGAAATAAC TTGGGGCGTT GAAGAGCTGT 180  
 TTAATTTTAA ATGCCTTAGA CTGGGGATAT ATTAGAGGAA GCAGATTGTC AAA 233

SEQ ID NO:2159

LENGTH:229

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02467

SEQUENCE DESCRIPTION:

GATCTGTGCA CACTTTCTAA ACAGCTTGTN ATGCAAGTNT GAGCCTATTG TGTTACTTGA 60  
 CCTTATTTTG GAAGTTTGA ATTGGCCTAG GAGGAAACCC AGAAATGAAC CAGGGGTATG 120  
 TNATCACITT TTNATATCA AGTCCTCACC CTCCTNCCAC ATAATGCTCT ATCCGGCTAA 180  
 GGTGGAAC CTGAAGTTGG AGAAGGTGGA ATAAAGTTAC ACCTGGAAA 229

SEQ ID NO:2160

LENGTH:227

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02468

SEQUENCE DESCRIPTION:

GATCCCTGCG AATTACGAAA ACTACTACAT CCATGATTGC CCCAACCCCC TTGGGGTGGG 60  
 GCAGAAGGTG AAGCATCCCA ACTGACTAGA GACTCAGGCC CTGCAGGNCC TTATAGAACC 120  
 TGTGGCCATC CCGTAGCACC CTGCCACCAG GTGACCTCGG CCATACTCAC TGCCCCCCTT 180  
 GGGCACCCAC TCACCNATGA ATAACTTAA CAGTGTCCTG TGGTAAA 227

SEQ ID NO:2161

LENGTH:226

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02469

SEQUENCE DESCRIPTION:

GATCTTACGA TGCCCTCTGT ACTGACCTGA AGGAGACCTA AGAGTCCTTT CCCTTTTGA 60  
 GTTGAATCA TAGCCTTGAT GTGGTCTCTT GTTTTATGTC CTTGTTCTTA ATGTAAAAGT 120  
 GCTTAAGTGC TTCTTGTTG TATTGGGTAG CATTGGGATA AGATTTTAA TGGGTATTCT 180  
 TGAATTGCTT TTACAATAAA CCAATTTTAT AATCTTTAAA TTAAA 226

SEQ ID NO:2162

LENGTH:224

TYPE:nucleic acid



TOPOLOGY:linear

CLONE:HUMGS02471

SEQUENCE DESCRIPTION:

GATCTGCCTT GCTCACTATT TGCCTATTGG CATATATGAT TACTTTGCTA AAAGACATT 60  
TGGCCAAGAC AAGCCCATNT CCAGAGCTCT AAGAATGCCT AACTACAAGA AAAAGGCCAC 120  
CTAGGCAATG GAAGCCCTCA AAGAAGTCGG AATGTCATAG TCTTGAAATG AAAGGGAAAC 180  
TGGGAAACTG GGTTTCTCAT TAAAGTTGTT TCCCACTCTN TAAA 224

SEQ ID NO:2163

LENGTH:221

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02472

SEQUENCE DESCRIPTION:

GATCTAATT GATAAACAAC ATGGCTTGTG TGAAACTGA GCAGGTGTTT GTTACCCAT 60  
AGTGTCTGT GTAGTTATTG CTTANTCTGC AGAAAATAAT GACTTAGATG AGATGTCTGA 120  
CTTGCTTCA CTTATTAAAC ATGTTACCA TGGGATGATG TCTGTAACAT CAGATATTGT 180  
TCAACTAGAC TAGGATTAA TAAAAATTGT GAAAGCTTAA A 221

SEQ ID NO:2164

LENGTH:210

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02473

SEQUENCE DESCRIPTION:

GATCTTAATT TACAGTTCCA TGGGATTAAA ACAAGTTTGC ATTTATGTAA TTTGCATTAC 60  
TTTAAAAATT ACAACAACAT AATCTCTGAA ACTTACTTCA ATCAATTCAC ATCCCTACAA 120  
CTGTTAAGAT TTATTTTGTG ATTAGNATCT TATAGTGGGT ATTCTTTTNA GTGCTGATAT 180  
TTCTATTCAT TAAATCCTG TGNACACAAA 210

SEQ ID NO:2165

LENGTH:209

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02474

SEQUENCE DESCRIPTION:

GATCCTGCAT TAAATTTTAA TTTGTGAAAA TTTGAAAATT ATGAGCTATA ACTTATAAAG 60  
TTTGCTTCT TATGNCTAAA ATCTTTTAAA GGATTATTG CATTTATGTA AAAGTGGAAA 120  
TGAAGTTATA TATGAGTGCA AAGAAATTGA CTTCTGCTCA AATATGTGTT GATACCCTAC 180  
AGTAAATTGA ATTAAATTTT TATCCCAAA 209

SEQ ID NO:2166

LENGTH:203

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02475

SEQUENCE DESCRIPTION:

GATCAGTCAA TTTCCGTCG TCCGTAACCA GCGGGCCCT GGTCAAGTNC TGGCTCTGCT 60  
GTCCTTGCCT TCCATTTCCC CTCTGCACCC AGAACAGTGG TGGCAACATT CATTGCCAAG 120  
GGCCCAAAGA AAGAGCTACC TGGACCTTTT GTTTCTGTT TGACAACATG TTTAATAAAT 180  
AAAAATGTCT TGATATCAGT AAA 203

SEQ ID NO:2167

LENGTH:200

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02476

SEQUENCE DESCRIPTION:

GATCTGGACT TCGAAACTTT CCTCATGGAT TCTGAATAAA AGAAACACTC TACACCTCTT 60  
AAATCAAGGT CATGTAGATA ATGACTTGT TATAAATGCT ACAGCTGTGA GAGCTTGTTT 120  
CTGATTTCAT TGTTGCTTC TGTAATTCTG AAAAAGTTTA AACTGGTAGA ACTTGAATA 180  
AATAATTNGT TTTAATTAAA 200

SEQ ID NO:2168

LENGTH:200

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02477

SEQUENCE DESCRIPTION:

GATCTTAAGT GTCTCCTTGC TCTGGTAAAA GATAGATTTG TAGCTCACTT GATGATGGTG 60  
CTGGTGAATT GCTCTGCTCT GTCTGAGATT TTTAAAAATC AGCTTAATGA GAGTAATCTG 120  
CAGACAATTG ATAATAACAT TTTGAAAATT GGAAAGATGG TATACTGTTT TTAGAGGAAT 180  
AAACGTATTT GTGGTTTAAA 200

SEQ ID NO:2169

LENGTH:197

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02478

SEQUENCE DESCRIPTION:

GATCCAAATC CCAGCTCTAC TGTCTCGTCC GAATTAGCCT TGGGAAAATC ATTTATATGC 60  
TAAATAATTT ACCTTTTAT CTAGGAGATG AAAAGAGGAT AATGTTTCCT TCCATAAAGA 120  
AAGTTCTTGT AAGAATCAAA AGAAATGGTG AGCTTAAAGT GGTGTGTAAC CCATAAAACA 180  
CATCATAAAA GTTCAAA 197

SEQ ID NO:2170

LENGTH:201

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02479

## SEQUENCE DESCRIPTION:

GATCCATGNC ATCTCTCTCT TGCCTGAGGG GAAAGAGAGA TGGGCCAGGC AGAGAACAGA 60  
 ACTGGAGGCA GTCCATCTAG GGAANNNNAC TGTGAGGCCA TACTTGTGAA ACGTCTGGAC 120  
 TGCTATTCTA GAGCTTTTAT TTGNGTGTGT TCGTTGCACA NCTTGTTTAA AATGTTTAAT 180  
 AAAAGCTTTA TAAACTTTAA A 201

SEQ ID NO:2171

LENGTH:218

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02480

## SEQUENCE DESCRIPTION:

GATCCCCCAA GTACAGGCGC TAATTNTTGT GATAATTTGT AATNGTGA CTGTACTCCCC 60  
 GGCTGGCAGC GTAGTGGGGC TGCCAGGCCC CAGCTTTGTT CCCTGGTCCC CCTGAAGCCT 120  
 GCAAACGTTG TCATTGGCAG GGAAGGGTGG GGGGCAGCTG CGGTGGGGNG CTATAAAANT 180  
 GACAATTAAG CGNGACANTN GTNTTTTATT TCCTNAAA 218

SEQ ID NO:2172

LENGTH:195

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02481

## SEQUENCE DESCRIPTION:

GATCCTTGCA GGGAGCTTGG AACCTTAGTG CACCTACTTC AGTTCAGAAC ACTTAGCACC 60  
 CCACTGACTC CACTGACAAT TGACTAAAAG ATGCAGGTGC TCGTATCTCG ACATTCATT 120  
 CCACCCCCNT CTTATTTAAA TAGCTACCAA AGTACTTCTT TTTTAATAAA AAAATAAAGA 180  
 TTTTATTAG GTAAA 195

SEQ ID NO:2173

LENGTH:194

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02482

## SEQUENCE DESCRIPTION:

GATCCGGCAA CATCAACCCG AGTCATTGCT TCTGTGGAGG GACAAGTGGA CTCAGGGCAG 60  
 CGCAGGCTGA CCACAGCACA GCCAACACGC ACCTGCCTCA GGACTGCGAC GAAACCGGTG 120  
 GGGCTGGTTC TGTAAATTGTG TGTGATGTGA AGCCAATTCA GACAGGCAAA TAAAAGTGAC 180  
 CTTTACACT GAAA 194

SEQ ID NO:2174

LENGTH:192

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02483

## SEQUENCE DESCRIPTION:

GATCAAATGG AAAGGAGAGG AAAGAACTCA GTGCTGCCTA TTAGTAGTTA ATTCTGTCAC 60  
 TCACCACTAC ATCACTTGAG ACAAATCTAT GCCACTCAGA ATCTCCTTCT TTCCTGGACT 120  
 TAACTCTAAT TCTAGAGTCT CTGTTACTGC TTGGGCTATA CCTGGGCATA CTAATAAAGT 180  
 ATGGTATTGA AA 192

SEQ ID NO:2175

LENGTH:192

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02484

SEQUENCE DESCRIPTION:

GATCAGAACT GTTACCAAAA AACAACTGTC AGTTTTATTG AGATGGGAAA AATGTAAACT 60  
 CGANNNTTAT TACTTAAGAC TTTATGGGAG AGATTAGACA CTGGAGGTTT TTAACAGAAC 120  
 GTGTATTAT TAATGTTCAA AACACTGGAA TTACAAATGA GAAGAGTCTA CAATAAATTA 180  
 AGATTTTTGA AA 192

SEQ ID NO:2176

LENGTH:187

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02486

SEQUENCE DESCRIPTION:

GATCGTCTTG GAAGGGAGTG GTTTTCAGAG ACATTTGAGA AAGTGAAGGA GAAACTCAAG 60  
 ATTGACTCAT GAGGACCTGA AGGGTGACAT CCCAGGAGGG GCCTCTGAAA TTTCCACAC 120  
 CCCAGCGCCT GTNCTGAGGA CTCCCTCCAT GTGGCCCCAG GTGCCACCA TAAAAATCCT 180  
 ACAGAAA 187

SEQ ID NO:2177

LENGTH:187

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02487

SEQUENCE DESCRIPTION:

GATCATTGAA ATGCTGAAAA TTTTAACAGT CTTCTTAAAA GTATTGAGGG GGCAAAAATT 60  
 ACCAATTATG GTATACAAAA ATAAGCCTAT AAATGTNTT CACATTGCTA ACTTGAGTTT 120  
 CAGTTGATTC AGTTTGTAAT AACTAGTAAT GAGCTTCTGT TTACAATAAA AATNCTGTAA 180  
 ATTGAAA 187

SEQ ID NO:2178

LENGTH:186

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02488

SEQUENCE DESCRIPTION:

GATCAGTTGC TTATAGATAA TGTTCATGA CCTCAAGACA TATATTTTTG AGAAATTATC 60

ATTTTAAAA ATTTGGTCTA TACTGATTGT TTTCCTGAT TCCAATATTA TTACTTATAA 120  
CACTGACCTC TGGAAAATAT TTTGTNCACA AGAAATAATA AAGTATAATG ATTTGTNGCA 180  
NNNAAA 186

SEQ ID NO:2179

LENGTH:179

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02489

SEQUENCE DESCRIPTION:

GATCCACAAG GCCTGAGGAG CAGTGTGGGG GGACAGACAG GAGGTGGATT TGGAGACCGA 60  
AGACTGGGAT GCCTGTCTTG AGTAGACTTG GACCCAAAAA ATCATCTCAC CTTGAGCCCA 120  
CCCCACCNC NTTGTCTAAT CTGTAGAAGC TAATAAATAA TCATCCNTNC TTGCCTAAA 179

SEQ ID NO:2180

LENGTH:179

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02490

SEQUENCE DESCRIPTION:

GATCCAATGG AGCCTGGNGA GGTGTGCCCA GAAAGCTTGT CTGTAGCGGG TTTNTGAGA 60  
GTNAACACTT TCCACTTTTT GACACCTTAT CCTGATGTAT GGTTCAGGA TTTGGATTTT 120  
AATTTTCAA ATGTAGCTTG AAATTTCAAT AAACCTTGCT CTGTTTTTCT AAAAATAAA 179

SEQ ID NO:2181

LENGTH:177

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02491

SEQUENCE DESCRIPTION:

GATCTGTCCA CTCCTGGTCA TTGGTGGATG TTAAACCCAT ATTCCTTTCA ACTGCTGCCT 60  
GCTAGGGAAA ACTGCTCCTC ATTATCATCA CTATTATTGC TCACCACTGT ATCCCTCTA 120  
CTGGGCAAGT GCTTGTAAG TTCTAGTTGT TCAATAAATT TGTTAATAAT GCTGAAA 177

SEQ ID NO:2182

LENGTH:176

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02493

SEQUENCE DESCRIPTION:

GATCAAAAAA CCACAGGGCT TTTGGGCACT GCCTCCTTGG GAAGTTAGTG GCCACAGAAG 60  
AGAGATGAAA CCTGTAAGAA GTCTGGAGTC TTTTGGAAC TCAGCCATTT CCCCAGGTTG 120  
TTACTTTCTT AGTATGTACA GTCTTCTCAG GATGAGCAGT AAAACCTTTG AACAAA 176

SEQ ID NO:2183

LENGTH:175

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02494

SEQUENCE DESCRIPTION:

GATCCTAAAC TCTCTAGCTT AAGTGTAAT GAAGTACAGT AGTTTCCCTA CTGAACCCTA 60  
CCTCTTGTGT CCCTGGAACC TTCTAGAACA CCTGCCTTCT ACCCTCTGGT TGGGAGATGC 120  
AGCCACCACA TCCCTTCATA TCATACTGTT TTGAATAAAT TTTCAAATCC TTAA 175

SEQ ID NO:2184

LENGTH:166

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02495

SEQUENCE DESCRIPTION:

GATCCGGAGG GCCCAGGAGA ACCGGAGCGT GCTTCAGGGT GCCCGCAGAA CAGGAGCTGC 60  
TCAGCCAAGA ACTGTGGCGG CGGCTGCTGC CAGGATGCCG AAGATACCCC ACTAGCACCC 120  
CTNAGGGGGT CATGTGGTCA ATAAAAGTCC TTAGCTGCTG CCTAAA 166

SEQ ID NO:2185

LENGTH:164

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02496

SEQUENCE DESCRIPTION:

GATCAAAATC AAGAAATCCG GGCATCACAG AGAAGTTGGG TTAGGACAG CAGGTGCTGT 60  
TCCGAGACTC AGTCCTAAAG GGTTTTTTTT CCCACTAAGC AAGGGGCCCT GACCTCGGGA 120  
TGAGATAACA AATTGTAATA AAGTAACTTC TCTTTTCTTC TAAA 164

SEQ ID NO:2186

LENGTH:164

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02497

SEQUENCE DESCRIPTION:

GATCAGCCCC TTAATNAG TTCTAGAGCA GGTCTTCTGT TCCAGAAGGG GAGAAGCATA 60  
GAGGGCCTGT GAGCTCACGT GTGTTCTTTG TCATAGGGGT GAAAACTAA CTTCAAGTGT 120  
CCCTGTTTG AAATAAATT AGCAGAGTCA CTTTCTATCT TAAA 164

SEQ ID NO:2187

LENGTH:163

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02498

SEQUENCE DESCRIPTION:

GATCTAATGG TTTTATAAAT NAAAGTTCCC CTGGACAAGT TCTCTGCCT GCCACCATGT 60  
 AAGATGTACC TTGCTACTC ATTCACCTTC TGTCATGATG GTGAGGCCTT CCCAGCAATG 120  
 TGGAACGTG AGTCCATTAA ACCTCTTTCC TTTATAAATT AAA 163

SEQ ID NO:2188

LENGTH:162

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02499

SEQUENCE DESCRIPTION:

GATCCTAACC AGGTAACCTG GTCCTNTGAA TTGAAGCTTA TCATATACCC AAAGCCTTGA 60  
 CTAGAAATAC CTAATAGAA TACCATGGTC ATTGGAAAAA ATAGATAGTN TTNTAAAGTA 120  
 TTATTTNAAT AAATCCTAAA GTNTGTCTNT CTTCTCCTCA AA 162

SEQ ID NO:2189

LENGTH:154

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02500

SEQUENCE DESCRIPTION:

GATCCTGGCC ATGAATGAAA AGGATAAGAA GAAAGAGAAG AAATGAAGTG ACCATCCAGC 60  
 CTTTCCCAAT NAGACTTCCT CTCCTTCCAC CCCTCATTTT CTTTTTGCAC ACATTACAGG 120  
 TGGTGTGTTC TGTGATAATG AAAAGCATCA GAAA 154

SEQ ID NO:2190

LENGTH:154

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02501

SEQUENCE DESCRIPTION:

GATCAAAGCC AGCNACCCCC ACCCCAACAC ACTCGGTGTC CCANTCATAC TAGGGCCTGT 60  
 GTAAATCCCA GCCTGGCCAT ACCCTCAACC TCAGTGGGCT GGAAATNACA GTGGGCCCTA 120  
 TAGCAGTGGC AGAATAAACT CAGNTGTGTT CAAA 154

SEQ ID NO:2191

LENGTH:153

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02502

SEQUENCE DESCRIPTION:

GATCGCCCCA CTGCAATCCA GCCTGGGAGA CATAATTCAA ATCTATTTTG GTCTTATATC 60  
 TTCTTATGTT TGTGTTATTT CATGTGTGCC AGTTTCTCTT TTTTTCACAA CAATTTATCA 120  
 ATTTGTGGCA ATAAAAATNA TTTACCTTTT AAA 153

SEQ ID NO:2192

LENGTH:151

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02503

SEQUENCE DESCRIPTION:

GATCATGGTG ATTTTACTGC TGCTTGTCG TATCGTGGTT GTTGCACTCT GGCCGACCAC 60  
CAGCAGTNAC ACCTGCCAAT NACAGATGCA AGCCCAACAC CCTTTTGGTA CGCAAAACCT 120  
GCTCTCAATA AATCCCCCA AAGCTCTGAA A 151

SEQ ID NO:2193

LENGTH:371

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02504

SEQUENCE DESCRIPTION:

GATCCCAGGA ACCTTCCTNC TCCAGGGCAG CACAGGACTC AGCCATGTNT GGACCGGCCC 60  
TGCTGAGGCT ACAGTCACTC TGGAACTCT GCGCTTCATC AGGNGGCAGG ACTGTGGCGG 120  
GAGGGGTCTT TGAAGATGGG TGTGGGGAGC AGTGGGTCAG GAAGTGGGAG CCAGAGGTTT 180  
GACTCACTTT GCTTTATTT TCAGGCTACA ATACAGGTCA GAGACAATGG CTTATAAAGG 240  
TTTAGTGTGG TCTCAGGATG TGACAGGCAG TCCAGCCTGA CCTTTCTGCA CACTCCAGAC 300  
AAACTTCCCA GACAAGCTCC TTTGTGCCTC TACGTGGAGA GGGTGTGGGA AAGTTATCAC 360  
ATTAAAAGGT N 371

SEQ ID NO:2194

LENGTH:147

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02505

SEQUENCE DESCRIPTION:

GATCAAGAAA GAGATGGAGG AGGAGGACTG AGCCCAGAAT TCACTAGGTT CGAATCCAGA 60  
NAGCAGTGTG GAAAAAAAAA ACCAAAAANC AACTGNCCAG TTGTTGATAA CCACTAAGAG 120  
TCTCTATTAA AATTACTGAT GCAGAAA 147

SEQ ID NO:2195

LENGTH:145

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02506

SEQUENCE DESCRIPTION:

GATCTGTGTC ATTNCCCATG AGGGGCCGGG GCAGGTGGCT GGGTGGGGGC ACAGGCTGGA 60  
GTATTCTNAG TTCTACTGGT TCTACACTGT GAGGTGGCAA TGGGATTTCG TCAGATGCCA 120  
CCCAATAAAA TGCCTGTAAC TTAAA 145

SEQ ID NO:2196

LENGTH:144



TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02507

SEQUENCE DESCRIPTION:

GATCGCTACT CTTAAGAATA TACATGTATG TATTCATAGG AACATTTTT CTCAATATTT 60  
GTATGATTCTG CTTACTGTGA TTGTGCTGAG TGAGCTCCTG TGTGCTTCAG AAAAAATAA 120  
ATGAGACTTT GTGTTTACGT TAAA 144

SEQ ID NO:2197

LENGTH:143

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02508

SEQUENCE DESCRIPTION:

GATCAGCTGG AAGCTCACTA GTCATCTCCT GCCCAATCCC CAGAAACCCT GATTCAGGTC 60  
TGCAGGCTCC TGCGGGCTCA CCACGGCTGC TGGCTCCGGT ACCATGTAAN NCCTAGGAAG 120  
GTAAAGGNGC AGGCAACCTC AAA 143

SEQ ID NO:2198

LENGTH:141

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02509

SEQUENCE DESCRIPTION:

GATCCAGTGA GATAGAATAC ATGTAAGTNT GGTTTTGTA TTTAAAAAGT GCTATACTAA 60  
GGGAAAGAAT TGAGGAATTA ACTGCATACG TTTGGTGTT GCTTTTCAA TGTTTGAAAA 120  
TAAAAAAAT GTTANGANAA A 141

SEQ ID NO:2199

LENGTH:137

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02510

SEQUENCE DESCRIPTION:

GATCCCTTGT GGCTATGCAG ATACCTACCT CACAGAGTTG TTGTAGAAGA CTGGTGGTTT 60  
GGTTCAAACC TTGTGATTAA AGAGTTTGTC AAGCATTTTA TTCTTTTGA TAAAGCAAC 120  
ATATCNAAAA CATTAA 137

SEQ ID NO:2200

LENGTH:135

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02511

SEQUENCE DESCRIPTION:

GATCCCTGTT TAACCCAAA TTACAGTCGG ACTTGGATAC ATCATTGTGA ACATTGTAGG 60

AAAGAAAAA GTCTTGGTTN TGAAAAACGA TTTGCATTG GGTAAAAATA AGTGACCATG 120  
CTTTTGTCT GTAAA 135

SEQ ID NO:2201

LENGTH:135

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02512

SEQUENCE DESCRIPTION:

GATCCAGCTC AAGTGCCATC CTGCCAGTGG CCCCAGACT GTGGGGTTGG GACGCCTGGC 60  
CTCTGTGTCC TAGAAGGGAC CCTCCTGTGG TCTTTGTCTT GATTTNCTT AATAAACGGT 120  
GCTATCCCCG CCAA 135

SEQ ID NO:2202

LENGTH:133

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02513

SEQUENCE DESCRIPTION:

GATCACTACT GCTCTTGGAG TTCCTTCTCC TAAAGCTAAG GCCAGCCTCC ATCACAAATG 60  
CCCATAAAT CTGGCTCGTC TTTGATGAAC AATAAATATT TTTGAACAA ATAAATAACT 120  
GCCCTGCATT AAA 133

SEQ ID NO:2203

LENGTH:138

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02514

SEQUENCE DESCRIPTION:

GATCCTCCCG CTGGCTTCCA GACAGACCTG GGATTTTGGC AGTCATGCCG GGTGATGGTG 60  
TTCCTGCGGA GACCCTCAGT TGTCTATTC CTTCTAGCT TCCCTGCAAT AAAATCAAGC 120  
TGCTTTTGTT GGAATAAA 138

SEQ ID NO:2204

LENGTH:130

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02515

SEQUENCE DESCRIPTION:

GATCATTTCA CCTGATGTTT TTAAAGCATC CTAAGTACAG TAGAGTAGAA AACTNATTC 60  
TTTGTTAATT GTACACTGAA TAATGCCTTT AAAAAATCAA AATAAAATTA ACAAATAATG 120  
GTGAATGAAA 130

SEQ ID NO:2205

LENGTH:176

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02516

SEQUENCE DESCRIPTION:

GATCTCCTAT GTTACCAATG TGTATCGTCT CCTTCTCCCT AAAGTGTA CT TAATCTTTGC 60  
TTTCTTTGCA CAATGTCTTT GGTTGCAAGT CATAAGCCTG AGGCAAATAA AATTCCAGTA 120  
ATTCGAAGA ATGTGGTGTT GGTGCTTTCC TAATAAAGAA ATAATTTAGC TTGAAA 176

SEQ ID NO:2206

LENGTH:130

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02517

SEQUENCE DESCRIPTION:

GATCATGTGA TGAATTTGTA ACATTCACAC AACACCTCAC TTTTNAATCT ATAAAAGAAT 60  
TGCACGTATG ANAAACCTAT ATTTNAATAC TGCTGAAACA GACATGAAAT AAAGAATTGA 120  
AAGAATGAAA 130

SEQ ID NO:2207

LENGTH:128

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02518

SEQUENCE DESCRIPTION:

GATCTAGCTT CTGGCTCTGT GTGTTTATTG ACCAGTGGTG TGCCTTGAGA AACCAGAACT 60  
CTCTGAATTT CAGTTTGTG TCTNTNTAAA TGAAGAAGGT TGTAATAAAA AAAATCTCAA 120  
GTTTCAAA 128

SEQ ID NO:2208

LENGTH:349

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02519

SEQUENCE DESCRIPTION:

GATCCGTCAT GGNAACGAG AAGCACAGCA AGAACATCAC CCAGCGCGGC ATACGTCGCC 60  
AAGACCTCGA GAAATGCCCC CGAAGAGAAG GCGTCTGTAG GCCCTGGTTA TTGGCTCTCT 120  
TCACTTTTGT NGTCTGTGGT TCTGCAATTT TCCAGATTAT TCAAAGTATC AGGATGGGCA 180  
NNTGAAGTGA CTGACCTTAA NTGTTTCCAT TCTNCTNTGA ATTAACTTA ACTCATTCTT 240  
GATGTTTGAN CCCTGGTTNA ACAATTCAGT AAANATCTGC TAGAATNCTT NCTATCATNT 300  
TCATGTGCAT TCAAGNTTCT CATNGCATCC ANGTTCTAGN CAACACAGN 349

SEQ ID NO:2209

LENGTH:127

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02520

SEQUENCE DESCRIPTION:

GATCACCAGG CAGCGACCTC CGCNCACCCC AGCAGTCGCG AGCCTCGGCC CAGCCANAGG 60  
AAGCGNTGCC GNCGGACCTG ACTGACTTCC CAGTGGAAC TGCCTTCTTNG GCTGGGACAG 120  
CCNTTTN 127

SEQ ID NO:2210

LENGTH:126

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02521

SEQUENCE DESCRIPTION:

GATCTGGGCC ACTTCCCTCC TTCCAGTCAT GAGTAATCAT CAAGGAGCAA GTTGGAGTGT 60  
TTCAGGTGTA TATTTGTAG AACCCAAAAG ATTGGAGCCT TAACAATAAA CATCAGCACT 120  
AAGAAA 126

SEQ ID NO:2211

LENGTH:126

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02522

SEQUENCE DESCRIPTION:

GATCTTTCAT AAAGCAGAAT GGTACGTATC GGATTGTTTT AATGTTATAT ATTGGATTGT 60  
ATTGTTGTT ACAAAACCAA TATTCTATGG AGAATGAAAA AAATAAAGGA CTAAATTAAC 120  
TGAAAA 126

SEQ ID NO:2212

LENGTH:127

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02523

SEQUENCE DESCRIPTION:

GATCTCGCAA AGTTATTCTT CCACCATGGC CAACAACGAA GGACTTTTCT CCCTGGTGCC 60  
GAGGAAGCTG AGCAGACCCC TGTGATGCCT GTNACCTCAA TNAAGCAAT TCCTTTGACC 120  
TGTCAA 127

SEQ ID NO:2213

LENGTH:125

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02524

SEQUENCE DESCRIPTION:

GATCAATGTA CTTTTATAA ACTTGCCATA GATATCTCAG ATTTGAAACC TCAAGACAGA 60  
TTTATTATTC TTAAATGCTG TATGATAATG AAGAAAAATA AAAATTTATT TCTTGCAAAG 120  
TTAAA 125

SEQ ID NO:2214

LENGTH:121

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02525

SEQUENCE DESCRIPTION:

GATCAGTTTG GAGAGTAGGG GGCCACTCAT ATTCTGGGCT CCTGGAACCA ATCCCGTGAA 60  
AGAATTATTT TTGTGTTTCT AAAACTATGG TTCCAATAA AAGTGACTCT CAGCGAGCAA 120  
A 121

SEQ ID NO:2215

LENGTH:124

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02526

SEQUENCE DESCRIPTION:

GATCCCCGCA TGGTGTGGG GGTGCTGGTG TGTCTGGTG CCTGGACTTG AGTCTCACCC 60  
TACAGATGAG AGGTGGCTGA GGCACCAGGG CTAAGCAATT AAACCAGTTA AGTCTCCCAG 120  
GAAA 124

SEQ ID NO:2216

LENGTH:120

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02527

SEQUENCE DESCRIPTION:

GATCAAAAAG GGGTCTGAGG TTGCATCAGG GAGACAACTG TAATGATATA AGCAATAGTT 60  
GAGAACCTGA CAGCAAGTAA TAAGACAGGA AGAATAAAAC TAGAAGAAGT CAGAATGAAA 120

SEQ ID NO:2217

LENGTH:120

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02528

SEQUENCE DESCRIPTION:

GATCTGAGTT CTGAGCAAGT CAGACTCCTT CCTTTTGGCC TCCAAAGCCA CAGATGTTGG 60  
CCGGCCACC TGTTTAACTC TGTATTTATT TCCAATAAA GAAGGGCTTC CAAAGGCAAA 120

SEQ ID NO:2218

LENGTH:120

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02529

SEQUENCE DESCRIPTION:

GATCGGAACT GTAAAGCTAT AATCCCCAGA ATTAAAGTTT TTATTATTTT TTATACATTG 60  
TAAACATAG ACGTTTATTT ATGTGATTAA NTTCTATTAA AATTACATG CTAAANTAAA 120

SEQ ID NO:2219

LENGTH:115

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02531

SEQUENCE DESCRIPTION:

GATCCAGTTT TTCTTGGGAG GTTGTATCTG GTCATAAGGT AAACATTCTA TATATTCTAT 60  
GCCTGCTCTA GAATTGAAAG ACTTCAGCAG TATTAAAGCA TTTTAAATC TTAAA 115

SEQ ID NO:2220

LENGTH:122

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02532

SEQUENCE DESCRIPTION:

GATCTGTATT TGTATATGCT GATGCAATGA TAAAAATCAC TGTAATAGNT TCATTGTGTT 60  
GTACTGGATG CAAAGCTAGA AAATATTGCA ATANNTGAGA CCGATGAAAG ACTTCTCTGA 120  
AA 122

SEQ ID NO:2221

LENGTH:110

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02534

SEQUENCE DESCRIPTION:

GATCTTGGGC AAGTTAATCT CTGGGAACCT TGGGTTTCTT ATCCTCAAAA AAGGCGATGG 60  
AAGGNTGGG NCNCGTGATT AAATAAAGC AACGCAAGAA AAATGCCAAA 110

SEQ ID NO:2222

LENGTH:109

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02535

SEQUENCE DESCRIPTION:

GATCGATGGT ACTTTTGGAA AATGCTTTAT TGCAAAAAAG TGGCTAGGGT TTTACAAGGN 60  
CTATGAAGAA ACATATTAAG GTTAATAAAG CTTTTTATTG AGTGTTAAA 109

SEQ ID NO:2223

LENGTH:105

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02537

2153480

SEQUENCE DESCRIPTION:

GATCCTCCCT TAGAGCATT GGAAGAGTGT GGCCCTGCCA ACACCTTGAC TTCAAACCTC 60  
TGGCCTCCAT AACTATGAAA TAAATNCTG TTGTTTAAAG CCAAA 105

SEQ ID NO:2224

LENGTH:108

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02538

SEQUENCE DESCRIPTION:

GATCTGTCCA CTCTGGTGT CAAAGATTTT ACTCATCTTC TTAGTACATT CTATGTATTT 60  
NATATGTATA ATTTTATACA ATTAAAAATA GATTTTNGTC TAGTGAAA 108

SEQ ID NO:2225

LENGTH:102

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02540

SEQUENCE DESCRIPTION:

GATCTTATAT CATTACAGTA GCCTTTTGT AGAATCCATC CTATTTTCCA CATGGATAAT 60  
CATGTCATGA AGAATAAAGA CAGTTTACT TCTTTCCTTA AA 102

SEQ ID NO:2226

LENGTH:100

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02542

SEQUENCE DESCRIPTION:

GATCCCAGGG GAGGGGTCTC TCCTCCCACC CCAAGNCATC AAGCCCTTCT CCCTGCACTC 60  
AATAAACCTT CAATAAATAT TCTCATTGGT CAATCAGAAA 100

SEQ ID NO:2227

LENGTH:97

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02543

SEQUENCE DESCRIPTION:

GATCTGCTGC TTCCAAGTTG TGTGACCTTG GCTAAGTCAC TTAACCTTTC TGATTGTCAT 60  
TTCGCTTTTT AATAAAGTGG GTCTGGTGAA CAAGAAA 97

SEQ ID NO:2228

LENGTH:97

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02544

00852

## SEQUENCE DESCRIPTION:

GATCCCACTG TATGGCTATA CGGTATTTTA TCAGTGCATC CACTGTCGGG TTTTCCCTT 60  
TGTGGACTAT TATGAATAGT GGACGCTTGT GTGCAAA 97

SEQ ID NO:2229

LENGTH:94

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02545

## SEQUENCE DESCRIPTION:

GATCAGGTGA GCTGTGTCCA GAAAACCAAC GAGAAGGAGT GGAAGGAGGA ATGAACGTTT 60  
CATTCTCGTT AATAAAGGCA TTATCCTAAT TAAA 94

SEQ ID NO:2230

LENGTH:102

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02546

## SEQUENCE DESCRIPTION:

GATCTAATCT ATTCTGGGG CCATAACTCA TGGGAAAACA GAATTATCCC CTAGGACTCC 60  
TTTCTAAGCC CCTAATAAAA TGTCTGAGGG TGTCTCATGA AA 102

SEQ ID NO:2231

LENGTH:93

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02547

## SEQUENCE DESCRIPTION:

GATCATATAT TTGTGGCATA CAGTGTGATG TTTTGACATG NATATAATTT TGTATACAAT 60  
GTGGAATGAT TAAACAAGC TAATTAACAT AAA 93

SEQ ID NO:2232

LENGTH:92

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02548

## SEQUENCE DESCRIPTION:

GATCTGCACT TCCTCCCTT TCACCTACCT GTACACCTAA CCTGGCCTTA GACTGAGCTT 60  
TATTTAAGAA TAAATCGTG GTGGTGGTCA AA 92

SEQ ID NO:2233

LENGTH:91

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02549



## SEQUENCE DESCRIPTION:

GATCAGTGGC TGCTGGGTGG CGGGTACCCT TNCTCAGATG CCTGGCAGGN CTGGNTGGCG 60  
ATTCATAAAG ACCTCGTGTT GATTCCCCAA A 91

SEQ ID NO:2234

LENGTH:89

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02551

## SEQUENCE DESCRIPTION:

GATCTAACCC CTTACCCATC TNTCTACTGC TGGACTGTGG AGGGTCACCA GGTGGGAAC 60  
ATGCTGGAAA TAAACAGCT GCAACCAA 89

SEQ ID NO:2235

LENGTH:88

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02552

## SEQUENCE DESCRIPTION:

GATCTTTTGG AGAGAAACAA ATGAGGATTG TAAAGTTTGG GGACTTACCT CTGTAGCATT 60  
GTGAAAATAA ACTTTGATTA AGCTGAAA 88

SEQ ID NO:2236

LENGTH:88

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02553

## SEQUENCE DESCRIPTION:

GATCACCTCG GCGTCTGTTT TGTATGCTCT TTACCTATGG ACTAGTTTGT GGACGGCTAA 60  
GAAATACAGC CTCAGCATTG ATTTGAAA 88

SEQ ID NO:2237

LENGTH:88

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02554

## SEQUENCE DESCRIPTION:

GATCTTAAGG AGTGTAATTT GCAATCTAAT TTTATCCTCT TACTCTGTGT TGTAAACCA 60  
TATACAATAA ACGGTGTTTA TGGAGAAA 88

SEQ ID NO:2238

LENGTH:96

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02555

## SEQUENCE DESCRIPTION:

GATCTGGCTG TGAGGCCCTC AGGGCAGGGA TACAAAGCGG GGAGAGGGTA CACAATGGGT 60  
ATCTAATAAA TACTTAAGAG GTGGAATTG TGGAAA 96

SEQ ID NO:2239

LENGTH:86

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02556

## SEQUENCE DESCRIPTION:

GATCCGGGGA CCAGGGGCTG ACCTCCATTC GTACCCCACT GCTTTGGAGN TGATGGGACT 60  
ATCAATAAGA ACTCTGTTC ACGCAA 86

SEQ ID NO:2240

LENGTH:90

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02557

## SEQUENCE DESCRIPTION:

GATCAAACCA TTNACCTGG AGTTTGGTAC TGGTTTAACT TTCTCTNAAT CTGTATAAGA 60  
AAAATGAAGA CAATTGAAC TTCAAACAAA 90

SEQ ID NO:2241

LENGTH:85

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02559

## SEQUENCE DESCRIPTION:

GATCCAAGTT TTGCGGGGTC TAAAGCTGTG TGTGTTGAGG GGGATACTAA GTTTATGAAA 60  
AAGAATAAAA AACACAACCA CGAAA 85

SEQ ID NO:2242

LENGTH:84

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02560

## SEQUENCE DESCRIPTION:

GATCTCGCCA CTNTTCTCCA ACCTGGGCAA TAAAGCAAGA NCCTGTCTTC AAACAAGCAA 60  
ATAAAAACTT CCTTATCCTG CAAA 84

SEQ ID NO:2243

LENGTH:80

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02562

## SEQUENCE DESCRIPTION:

GATCCTGTTA GCTTTCTGAA TGTTCGTGG TTGAATGTGT TTTTGCTTAA ATAAAGCTTT 60  
TGGTATTTGT TTAAATTAAA 80

SEQ ID NO:2244

LENGTH:79

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02563

## SEQUENCE DESCRIPTION:

GATCCCAACC GTTTGGCACA GCTTTGGCCA CAGCCAGGCC CCTCTGGAAT TGTCTTATT 60  
AAACCAGTTT CCCGAGAAA 79

SEQ ID NO:2245

LENGTH:78

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02564

## SEQUENCE DESCRIPTION:

GATCCGGGTC AATGCTTCGT TTTCTAAAGG ATGCTGCTGT TGAAGCTTTG AATTTTACAA 60  
TAAACTTTTT GAAACAAA 78

SEQ ID NO:2246

LENGTH:76

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02565

## SEQUENCE DESCRIPTION:

GATCTTGTTT TTCCATGAAT ACAGCATGTA TAATAAAAAT TTTAAGAAAT AAATGTTATT 60  
CTACTTTATT AACAAA 76

SEQ ID NO:2247

LENGTH:74

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02567

## SEQUENCE DESCRIPTION:

GATCTTCTGC CGGGCGTGCC CCAGAGGACA GTGGGTGGAG TGGTCCTACT TATTAAATGT 60  
CTCAGCCCCT CAAA 74

SEQ ID NO:2248

LENGTH:73

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02568

## SEQUENCE DESCRIPTION:

GATCTCACCT TTGCAAAGTT GGATAGTCAA TTTGTTTTTA GAGGAAATAA AACACTTATT 60  
CTGTGATTTT AAA 73

SEQ ID NO:2249

LENGTH:73

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02569

## SEQUENCE DESCRIPTION:

GATCTGGAGA GAAAAACATT CAAACCATTG CATCATACAA AAAAAAGGCT ATTAAAAATT 60  
GGATTATAGC AAA 73

SEQ ID NO:2250

LENGTH:72

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02570

## SEQUENCE DESCRIPTION:

GATCAGAGTA AGAATGTCTT AAGAAGAGGT TTGTAAGGTC TTCATAACAA AGTGGTGTTT 60  
GTTATTTACA AA 72

SEQ ID NO:2251

LENGTH:74

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02571

## SEQUENCE DESCRIPTION:

GATCAAATCT GTACAGTTTC TATTGTTCCA GATTTTTTTA AGTTTGTATT AAAAGCATGA 60  
TACATAATAG TAAA 74

SEQ ID NO:2252

LENGTH:71

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02572

## SEQUENCE DESCRIPTION:

GATCTTTTCA GTGTTTTTTC ACTTTAGCTA TGTGGATTAG CTAGAATGCA CACCAAAAAA 60  
ATACTTGAGC N 71

SEQ ID NO:2253

LENGTH:71

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02573

## SEQUENCE DESCRIPTION:

GATCCAGGAG GGAGCCACCC CCAAGGACCC TGCCAGCCAC AGACCTCCAA TAAAGACAGC 60  
ATGGAACAA A 71

SEQ ID NO:2254

LENGTH:71

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02574

## SEQUENCE DESCRIPTION:

GATCTGATGT GAATTCAGAT TTCCAATCTT CTCCTAGCCA ACCATTTTCC TGGAATNAAA 60  
AATTCAGTAA A 71

SEQ ID NO:2255

LENGTH:69

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02575

## SEQUENCE DESCRIPTION:

GATCCAGAAG TTCTAAATCC AGGATTTTAA TTAGTAACTC AAATAAAATG CCACACATT 60  
TCATACAAA 69

SEQ ID NO:2256

LENGTH:69

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02576

## SEQUENCE DESCRIPTION:

GATCATAGTA GTGCCGCTGT TGAGTGATAA AGCAACTTGT CATTAAAGAT GTGTGTNCAG 60  
ACATGGAAA 69

SEQ ID NO:2257

LENGTH:69

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02577

## SEQUENCE DESCRIPTION:

GATCCCAGCC CAAATNNGCC CATTCACACA ATCAGGAGCN AAATAAATTA CTGTTGTCTT 60  
AACACTAAA 69

SEQ ID NO:2258

LENGTH:68

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02578

## SEQUENCE DESCRIPTION:

GATCTTCAGC TGTTTGCCCG TNCTTATTAC ATAAACTGAA AACAGGATAA AAACGGAGTG 60  
CAATGAAA 68

SEQ ID NO:2259

LENGTH:63

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02580

## SEQUENCE DESCRIPTION:

GATCTGTCAA AGATATGAAC ATGAAAGAAC AGCTTATTTT AATAAACCCA CTTTACATAC 60  
AAA 63

SEQ ID NO:2260

LENGTH:63

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02581

## SEQUENCE DESCRIPTION:

GATCAAAAGT AAATGTTCTC TTGCCATT TAGATGGAAA AATAAAAAAA ATTA AAAAGT 60  
AAA 63

SEQ ID NO:2261

LENGTH:86

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02582

## SEQUENCE DESCRIPTION:

GATCTACATG AAGGAACTGT AGATGATGTA TTTTTTTCAT CTTTTTTGTT AACTGATTG 60  
CAATAAAAAT GATACTGATG GTGAAA 86

SEQ ID NO:2262

LENGTH:60

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02583

## SEQUENCE DESCRIPTION:

GATCCCTTTT TTATTTTGTG GTTTTTTAAT ATAGTATAAA AATCCTTTTA AAAAAACAAA 60

SEQ ID NO:2263

LENGTH:67

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02585

## SEQUENCE DESCRIPTION:

GATCAAAACA GGATTCCATT GACCTAATTA TATTAAGCTA ATAACTAAT TTTTGAATT 60  
TTTGAAA 67

SEQ ID NO:2264

LENGTH:58

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02586

SEQUENCE DESCRIPTION:

GATCAATATT TATTGACTTG TAGTAACTGC CACCAATAAA GCAGTCTTTA CCATGAAA 58

SEQ ID NO:2265

LENGTH:55

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02588

SEQUENCE DESCRIPTION:

GATCAATAGA CTGTACTTAT TTTCCAATAA AATTTTCAA CTTTGACTG TTAAA 55

SEQ ID NO:2266

LENGTH:53

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02589

SEQUENCE DESCRIPTION:

GATCATTCTC AGTATCCACT GTCTATGTAC AATAAAGGAT GTTTATAAGC AAA 53

SEQ ID NO:2267

LENGTH:53

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02590

SEQUENCE DESCRIPTION:

GATCCATTTN TTTTGTGAAT GTGCTAAATA AAAAGTGTTA TNAATTGCTG AAA 53

SEQ ID NO:2268

LENGTH:52

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02591

SEQUENCE DESCRIPTION:

GATCCTGCAT CCCACTCCCT GGGAGCCAAT AAAGTGCATT TTCACAGGCA AA 52

SEQ ID NO:2269

LENGTH:50

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02592

SEQUENCE DESCRIPTION:

GATCACAAAG TCAAAAACCC ATAAGAAAAA TTGAAAAAGC TACAAGCAAA

50

SEQ ID NO:2270

LENGTH:50

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02593

SEQUENCE DESCRIPTION:

GATCATATTT TCTATTAAAG TGGCTAACAC CTGGCTACTC TTACTGTAAA

50

SEQ ID NO:2271

LENGTH:290

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02612

SEQUENCE DESCRIPTION:

GATCTGTAAA TAAATCAGT GCACTGTGAA TCACACCCAG CCCCTTTCCC TGCTGTGTGG 60  
ATTAGGTGTC AAGACACCTA GTTCTTTCTG GGGCCACCCG GCTGGCCTCA CTGCTTATAT 120  
TAAGGCTCCT CCCAACTCTC ATTTTCCTTT GGAAAACAAG ACTTTTTC CCATGGTTAC 180  
CGCTGAGATA CTGGGGCTGT AGTAGTATAA AAGCTCACAG TTCCTTCTGA GTGCTGAAAA 240  
GAGTGCATGA GTTGCTTCGA AATAAAGGG TCAAGCATTCTACCTGAAA 290

SEQ ID NO:2272

LENGTH:556

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02627

SEQUENCE DESCRIPTION:

GATCTGTGCT TCCNACTCAC ATGTNAGGCC ACGCCATCCT CTTGCTGAAN CCCTATTGAT 60  
GCTTTCTAAC AGGTTCTCGT GTCTCTCCCT GACCAGGCC TCTTACAGAC TGCAGAATTA 120  
CCATCCACAG TGTACATTGG ATGAGAATGT GTCACCACCA TGCTTAGAAC CACTCCTATC 180  
ACTGACAGGT CAATATCTGA GCTCCTTGGC ACAACACACA TGTCCAGGGA GTGGCCAGTA 240  
ATTAGTTGTG CCTGGAGTAT TGAGAGCATC AGTGGCCGGG AACATCAGGC AAGATGTGAT 300  
GTTTTAAAGA GCCTTGAATG CCATGCTAAG GACTTNGAAC TGCATTGCAC AGCCCATGGG 360  
GAGCTCTGGA AGGTTTAAAA GCAGNGAAGA NCCTTGCCTT TGTCTAAATT CTGTAAGTCT 420  
CAAGCACTTC TGCTTTCCTT CATAGNACTT TGTAATTAT TTCAATTGGC TTGGTTNATT 480  
TTTTNCNNA TTTTCCCTT AAATTCAAN GTTTTGGGC GGGATTAAAT NNTGGCTTTT 540  
TTGNTCNCNT TTAAAA 556

SEQ ID NO:2273

LENGTH:527



2153480

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02628

SEQUENCE DESCRIPTION:

GATCTGAACA TCTGGCCCAA GTGAAGCATG GCATATAGTG CCCTTGAAG AAAATTAGGC 60  
 CTCAAATGAC AGTAGCATTG AAGTGTTTGC TGCAGAGTTG AGGGAAACCC CCAGCCACCC 120  
 TCCCGGAATC CGAGATAGGG TGGCACATCT GTCCTGACAG ACGAGGAGTG TAACTNAACC 180  
 AGGAATATTT CCTCCATTCC TGCTCTCCCA CTGCACACAG GGTGGTGGCA CATTATCCCT 240  
 CTGGGGGGTG GGGACGCCTG TTGTTTTGGC TCAATTTGGG TTTGTTGGTC ACATGGAGCT 300  
 CTTCCATTTC GTTTAGCTGA ATAATGAGTT GTTCCTAGAG GAGACAGCCT GTCTCTCCTT 360  
 GTTNCCNCA AAGCCCATGN CCTGNCGTGG TGGANCTGGG GCTTTTGGNT GGGGAGGGGN 420  
 CCCAACAAATG GATNTNTTN CCTTNCTCCG AATTCCAACG GANTNNAATG TNCAAAGGCC 480  
 CTTTNGAAAC TTGGNGGGAA ANTTAATTNC TNTNCCTNG NNGTGGN 527

SEQ ID NO:2274

LENGTH:458

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02629

SEQUENCE DESCRIPTION:

GATCAGCAGC CAATATGGGT TTGTTTGGTT TTTTAAATTC TTA AAAACAN CCTNTAGAGG 60  
 AATAGAAACA AATTTTATG AGCATAACCC TATATAAGA CAAATGAAT TTCTGACCTT 120  
 ACCATATATA CCATTAGGCC TTGCCATTGC TTTAATGTAG ACTCATAGTT GAANTTAGTG 180  
 CAGAAAGANC TCAGATGTAC TAGATTTTCA TTGTTTATTG ATATGCTCAG TATGCTGCCA 240  
 CATAAGATGA ATTTAATNNN NNNCAGCCAA AGCAATATAC TCTTACATGA TTTCTAGGCC 300  
 CCATGACCCA GTGTCTAGAG ACATTAATTC TAACCAAGTTG TTTTGCTTNT AAATGAGTGA 360  
 TTTCCATTTT GGGGAACAGG TTTCAAATGG ANTATATNTA CATGGGTAAA ATTCCCCTGT 420  
 GCTAGTGTAG GNCTTTCCTN GGGGAATGTT TTATGGGN 458

SEQ ID NO:2275

LENGTH:452

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02630

SEQUENCE DESCRIPTION:

GATCGACTAC AAGCCAGCCC CTANGCACCT GCTGCTACAT CATGAAGNTA NCTCCAGAGA 60  
 GCATCCCCAG TCTTGAGGNT CTCAATAGAA AAGTCCACAA CTCCAGGCC AAGCCCGCAG 120  
 TGCCTACGTC TAAGCTGGGC CAGGCAGAGG GNCGAGATGC AGGCTCAGCA CCCTCCGGAG 180  
 GGGACCCGGC CTTCTGGGN NTNGCCGTNA NCACCCTGTG TGGCGAGGTG CCGCTCTACT 240  
 ACATCTAGGA CGNCTCCGGT GAGCAGGGTC AGTGGAAGCC CCAACGGGAA AGGAAACGCC 300  
 CCGGGCAAAG GGTCTTTTGC AGCTTTTGA GACGNGCAAG AAGCTGCTTT CTTCCACAA 360  
 CCGNAGGACC AAAACCCTTG GAGAAANTGN GNAGNTTGN GGAGATGGAT TTGGGAGTTT 420  
 GGCAANAGGG TTGACCNA NGNGGGCCG GN 452

SEQ ID NO:2276

00862

LENGTH:451

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02631

SEQUENCE DESCRIPTION:

```
GATCTTGTTT ACTTTTGGAC ATCAAGCCCA TCACTGCCAG CCAGTNAAGA AGGATTCCAG 60
CCTATGCCCT CAATCACAAT AAGACCACCA GATGACCAAC ATCTTCCTAC TGCAAATACT 120
TGCATTTCTC GACTTTACGT CCCACTCTAT TCCTCTAAAC AGATTCTCAA ACAGAAATTG 180
TTACTCGCCA TTAAGACCAA GAATNTTGGC NNGTGTAGA GTATAAAAAG TGTGTATTGC 240
TGTGTAATAT TACTAGCAAA TTTTGTAGAT TTTTNTCCAT TTGTCTATAA AAGTTTATGG 300
AAGTTAATGC TGTACATCCC CCCTGGTGGT ACCTTAAAGA GATAAANTGC AGACATTCTT 360
TGCTGAGTTT ATAGCTTAAA AGGCCTAAGG GAGCACTAGC AANCATTTTG GGCTATATT 420
GGGTTTGCTA GGTACCAAC TTTCTGGGG N 451
```

SEQ ID NO:2277

LENGTH:446

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02632

SEQUENCE DESCRIPTION:

```
GATCCAGCCA GGCATCTCGG CGCTTGGCA CCATGAGTTC TATGTCTGGG GCCGACGACA 60
CTGTGTACAT GGAGTACCAC TCATCGCGGA NAAGGCGCCC AGCAAACATG TACACCCGCT 120
CTTCAAGCGC TTAGGAAAT NATNCTTAGG CAGGGTACTT CGTTCAAGAC CGGCGCTTGG 180
CACCCTTGTT GAAAGGGNT TTTGAGCATA ACATTTTCCT TCCACCTCTT TGACCTTCCC 240
TCCAGCGTTG GCCAAATTGT GCTGAGGAAG ATGCATCAAG NGNTTGGCTG TGCCTTCATA 300
GGTCATCTAG GGTTTTATAA AGGAGGAGGA GACAATATTT NTTCAAACCT TTTGGGAGT 360
GGGGTCATTT TCTGTATATA AANAATGTTA ATATTAAAGG TGTAGTTTAT GTTACCGTTC 420
TGAATAAACA GATTNGGCCA TTNAAA 446
```

SEQ ID NO:2278

LENGTH:425

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02633

SEQUENCE DESCRIPTION:

```
GATCCACACC TGACCCTGTT GGGTCGAGTT AGGNTGGGCC TTGGTCTGCA CTGTAGCACC 60
TNTGTTCTTT GAGTTCACAT CATGAATGTG GTGACTTNCC AGNTACCATA TCAGGCTTAA 120
CCTAGACAT CCTATTCTT TNCTTCTATG ATATCCAAAT TGGACTGACC TCACTTCAA 180
GTTGCTGTCC CATTTTGTCA CCCTATCTTA TCTCGGGGAA ATTGCAGACT GATGGCCAGA 240
CCAACCTCTG TGAAATTCTT GCATAGAGCA AACCTGTGCT CATTTTAAAG TGGCATGGGA 300
GAGGCCCCCA GCCTAGTAAA GCCTAGTCTG TGTCTTACA GTGCTGGTAG NATGNGTTT 360
GTGTGTATAA ATATATGATA TAGGATTGAT AATATGTTNN CTAACGGCCA TATTATTGAA 420
GGGCN 425
```

SEQ ID NO:2279

LENGTH:414

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02634

SEQUENCE DESCRIPTION:

```
GATCTGCCTT AACTCCAAC TACATGTTTT GGTCACTATT ACAAACGTG ATCCCAGAAT 60
GATGCTGCAG AGGCTAGGGC TAGGACACAG ACCAGTGTTC CCATGTGGGA ATTCCCTCCC 120
AGTATTTCTT AGGAANNNTA TGTTTTTTGA ATCCATAATC CCTAGAAAAA TCAGTTGAGG 180
AAATGAGAAG TATTGTAATT ATNCTGTGAA TAGTAACACT TACCATTATG GAGACATCAC 240
TAGTTTGAAA GANTCCAAC TCAATCAATN TTAACGTACC GAGTTGAAGG NTACAAGANC 300
TGAGACAGGA GCATAGCAGA GGAGAAACGG TCACCATCTC ATTAGCCCTA TTTTGTGGNT 360
TGNTGTGATG CCATTACATC TGNAATAATC TGGGCCATNT CAGCTGCTAA TGGN 414
```

SEQ ID NO:2280

LENGTH:293

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02635

SEQUENCE DESCRIPTION:

```
GATCTCACCT TCCTTCGAAT TCGCTCCAAG AAAAATGAAA TTATGGTTGC ACCAGATAAA 60
GACTATTTCC TGATTGTAAT TCAGAATCCA ACCGAATAAG CCACTCTCTT GGCTCCCTGT 120
GTCATTCCTT AATTTAATGC CCCCAAGAA TGTTAATGTC ANNNNGTCA GTGGACTAGC 180
ACATGGCAGT CGTTGGAAC CCACTCACAC CAATCCAGTG ACCGTGTGTG GGCTGGNGGC 240
TCTNTNTCCC NCNCCAACGG AACCCNGTG TGCACCAACC TTNNCNCAG AGN 293
```

SEQ ID NO:2281

LENGTH:400

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02637

SEQUENCE DESCRIPTION:

```
GATCTGGCAG GGCACCACAG CGCCCCCTAC TGAACCATCA GCATGTCAGT GGCATTTAAA 60
GCCATGCAGC TGGAGGGGCC ACTGAGATTG TCTCTGAGTA TTACTGAGAA GCAACAGAAA 120
AGAGCCATGG ATGGAGCCCT TGGGCTCTCT GGGAAATGGG AAATCAGCCA AAGGACTGAG 180
AAGGAGTTAC CTTAAGGTCA GAGAAAACCA AGAGAGTGTG GTGTTCTGGA AGCTGAGCTT 240
TCTTTATTCA ACCTCATTC CTTCTCCAAA TAAGCCACTT GTGTAGTTGG GCCCCCTCAG 300
GGTTGAAGGC AAGAGGAGAA AGGCACAGCG TTTGGGAAAC AAGACTTTTC CTGCAATAGC 360
CTGGGGAAGG AATAAAANGG ATAGAGGTGT TTGGGGGAAA 400
```

SEQ ID NO:2282

LENGTH:400

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02638

SEQUENCE DESCRIPTION:

GATCTGTCCA ACGCCTGCAG CGTGGATGTG GAGGCGGACT AATCAACNAG TGCTCTGTTA 60  
 TTATTTCTAC CCATCCCTTT TCTCCATGCT AATTTGCTTA GAACTTTAAC ATTGAATGGA 120  
 CAGCAAATGT CATGTTCTGT TTAATTATCA CTCCTTGACC ATTATGTAA TTTCTTTCCC 180  
 TAACAAGGTG ACGCATTGTT TTAAGTAACA ATGACCAACT CATCTACTCT TCTTCCAAAT 240  
 TGTGTAAATT GAANGGGTAA AATGTGGGAA AACGCTAAAT TTGAATGCTA AATTTGAACA 300  
 TTTACACAA CCAATAATTT TGAAATGCTT CTTNGCAATA TTATNGCGGT TTCGGNACCA 360  
 GGTTAAAAAT NNCTTTCATT TTCAGGNCAT TTTGGTCAA 400

SEQ ID NO:2283

LENGTH:386

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02639

SEQUENCE DESCRIPTION:

GATCGATAAT ATAATTTATA ATGAAATTGC TTTATCAGCT ATTAATGTTA ACTACATCAT 60  
 CTTTCATATAG CTTTATAACT CATTGTGCT ATTCCATTTT CCTCTGTTCC TTTTATTTTC 120  
 ACTTCCCTTG TAATGTTAGT CTCTTTGTAC TGATTCTGA AGAGTTCATT TATGATTAAA 180  
 CATGTTAACA TTTTGTCTAG AATTGCAAAAT ATGTTTTTCC TCATTCATTT TACTATGGTG 240  
 TTTTATTTT GGGTTATACA GAAGTNGTAT ATTGAAATAT AATCTNGTNC TGTTTTATGA 300  
 CTTTGGAGTT TTGTGGTTTT TTNAACCAN GTTACAGTG GNATCCNTNN ATTNGGTATT 360  
 GCCGTCNTAN TNCCNGCAGT TAGGTN 386

SEQ ID NO:2284

LENGTH:384

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02640

SEQUENCE DESCRIPTION:

GATCTNNTCA AACAGCAAAC GCCCACAGAN GGCCAGAGG NGGTGGTAAT CAGGGTGTGT 60  
 GGGTGNTTTT AGGGTTCTTT AGTGTGTGTT CTTTCACCCA GCGGTGGTG GTCCAGCCA 120  
 GTTTGGTGCT GACGGTGAGA GGAAATNAGA ATCTGTTTGC AAATTGTCCA ACCCACCACC 180  
 TCAACATGAG GGGCTTCCAT TTTNTGTGTT TTGTAAGGGA ACTGTTTCCT TCATGCCGCC 240  
 ATGTTCTGTA TATTAGTTCT GATTTCTTTT TAACAAATGT TATCATGATT ANGAAAATTT 300  
 CCAGCACTTT AATGGCCAAT TAACTGAGAA TGTAAGAAAA TTGATGCTGT ACAAGGCAAA 360  
 TAAAGCTGTT TATTAACCTT GAAA 384

SEQ ID NO:2285

LENGTH:383

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02641

SEQUENCE DESCRIPTION:

GATCTTTTCT ATAATATCCT ACTACTTTGG TTTTCCTAGC TCCATACCAC ACACCTAAAC 60  
 CTGTATTATG AATTACATAT TACAAAGTCA TAAATNTGCC ATATGGATAT ACAGTACATT 120  
 CTAGTTGGAA TCGTTTACTC TGCTAGAATT TAGGTGTGAG ATTTTTTGTT TCCAGGTAT 180

AGCAGGCTTA TGTGGTGG CATTAAATTG GTTCTTTAA AATGCTTTGG TGGCACTTTT 240  
 GTAAACAGAT TGCTTCTAGA TTGTTACAAA CCAAGCCTAA GACACATCTG TGAATACTTA 300  
 GGATTTGTAG CTTAATCACA TTCTAGACTT GTGAGTTGAA TGACAAAGCA GTTGGACCAA 360  
 AAANTTTATG GGCATTTAAA GGN 383

SEQ ID NO:2286

LENGTH:424

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02642

SEQUENCE DESCRIPTION:

GATCTAAAT ACCTGGTGGC TTTTNACAAA AAGCAGATTT TNTTCATGTA CTGTNATGTC 60  
 TGATGCAATG CATCTAGAA CAAACTGGCC ATTTGCNAGT TTA CTCTAAA GACTAAACAT 120  
 AGTCTTGGTG TGTGTGGTCT TACTCATCTN CTAGTACCTT TAAGGACAAA TCCTAAGGAC 180  
 TTGGACACTT GCAATAAAGA AATTTTATTT TANACCCAAG TCTCCCTGGA TTGATAATAT 240  
 ATACACATTT GTCAGCATTT CCGGTCGTGG TGAGAGGCAG CTGTTTGAGC TCCAATGTGT 300  
 GCAGCTTTGA ACTAGGGCTG GGGTTGTGGG TGCCTCTTCT GAAAGGTCTA ACCATTATTG 360  
 GATAACTGGC TTTTTTCTTC CTCTTTGGAA TGTACCATA NAAATAATTT TTTGAACCAT 420  
 CAAA 424

SEQ ID NO:2287

LENGTH:378

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02643

SEQUENCE DESCRIPTION:

GATCCGAAGA GGAAGGGCGG TCCGGGCTCC ACACCTAGCT TCGTGGGCAA ACGCAGAGGC 60  
 GGGAAACAAAC TAGCCCTNAA GACGGGAATA GTAGCCAAGA AGCAGAAGNC GGAGGATGAG 120  
 GTATTAAACA GTAAAGGTGA CGCGTGGGCC AAGTNCNNGG CAGAAGTGAA AAAGTACAAA 180  
 GCTCACCAGT GCGGTGACGA TGATAAACT CGGCCCTGG TGAAATNACG CCCCTCCCCC 240  
 ACCTGCCCAT GGCCTGGGAC TCTCTGCGAT GTACATAACT ATTTAATGCA GCGGCANGTC 300  
 GACAGCTTTC CCTGAGAGGA CTTAAAAGCA GAAGGAAACC GAGATGCTTC CCGNAAGCCG 360  
 TGGACGATTG TCCAAGGN 378

SEQ ID NO:2288

LENGTH:370

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02644

SEQUENCE DESCRIPTION:

GATCTTCTTG ACTATGCCAG TTGTAGTACC AGCTTCTGTA TCTGCACTGA ATTCTGNCTC 60  
 AGTAATATGC CTTTGTTTAA AATTTAAATA TTTTTCATT TTTTAACTT AGAAAATAAT 120  
 TATAATGAAN NNNNTAAGTA TCTCATTTTA GGATTCTGAT TTACATAGGT ATCACTGTAA 180  
 CTTGTGCTGT TTGCATAGGT ATACTCTATC TTGTGCTATC TGCATAAAAT ATCCAAGTAA 240  
 ACACATTGTG ATTTTACATC CGTGCATAGA AAAAAAATC ATCTGAACTC AAATCAATCT 300

GTTGATACTG ACTAGATTGG TGACGTGTTT ATGTGTACCA CTAGTGATAA TGCACGGTCC 360  
TGTACAAGCN 370

SEQ ID NO:2289

LENGTH:370

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02645

SEQUENCE DESCRIPTION:

GATCACAGGA ACAGCAGGTG ACAGGCCTAG CTATAGTTAG GAATACACAA GCCGTAAAAT 60  
CGAGTCCTTA CAGCCATACC ACAAGGTACG TCCANNTGGA CTACAAGAAG AGCTTCCTTT 120  
AAAGTTCCTA TTTCAGCATA AAGAGGCTGT CCTTTTTTTT NAGGAATAGT TTGGACCTTG 180  
TGCCTCCTGT GGGAGGCTGA GGAAGTCAAG AGGAGAGCTA GCAGATATGC CTGTCACCC 240  
CTCTCTGGTA CTTGTGGCTT GCTAGTATGT TTTNATGATA ATCTCGGGCA TTGTTGCAT 300  
TTGTGTTTAT TAATAGGGTT TTTGTTTTTT GTTGTTTCCT NTTTTNACAG TAANGGCTGA 360  
ATTACATAAA 370

SEQ ID NO:2290

LENGTH:367

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02646

SEQUENCE DESCRIPTION:

GATCTGAAAG GAATGCTAGA AGTGTTTAGA GAGCTGACAG ATGTCCGACG CTAAGGGGG 60  
CATGCNACAG GGGGAATGGC TCGCTTCAGT GCCCTGCTGC TCAAAGCTCT AGGGNAGAAT 120  
GCAGTCGGGT AGNCTGTGGG GCTCTAACC CACAGCAACC TCTAGGGATG ACGTCACTAA 180  
AAACCGATGA AGCCTCCATA ACATTGGTTC CTTACTGACG CTGAGGAGCA NGGCAATCTT 240  
CACACCTTAA CCAATGCTAT TCATGTAGGA TGACCAAGAA ATGAATGTTT CTTACTGAAA 300  
TAATACATAT TTTTGGCATC TTTTGGTTAC CCATAGACTA ATTAAANCTA ATCCNNGGNT 360  
TTATAAA 367

SEQ ID NO:2291

LENGTH:359

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02648

SEQUENCE DESCRIPTION:

GATCCTGACA GAGCCCTGAA CAGATTATAT CACTCGGCTA GAGGCACTGC AAAGACGACT 60  
TGGAACATA CAGTCAGGTT CAACTACTCA ATTCATGCT GGCATGAGAA GATAATCCTT 120  
TGAAACATCA TTAATTGAAG TGATTTTAAA TAGATTTTCT TTTGTAAATC AATGGTTCTT 180  
TTGTGCTTTN GNNNNNNCGA ATATTCAATG GGACCAATAT GAACACAGCT TATGATTGTA 240  
TACAAATCCC TTGCCAGCAC ATGAAANCAA ACTGGANTTT GTATATATAA GCATTGTGTA 300  
TGTATTCATG CACAATAATT ATNGANTTAC CTGTATATTT GTGGGAATGC TAATTTAAN 359

SEQ ID NO:2292

LENGTH:357

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02650

SEQUENCE DESCRIPTION:

GATCTGTGGG TCCGGCTGNA GGAGAGTGAC ATAGTCCCGC AACTCCANNT TGCCTGTCCT 60  
GGACAGGCAC ATCTCCACTG AACTGCGGCT CCNTCGCCGT GGGCATTCCC ACCACAGCCA 120  
GATGGTGGCC AGCAGTGCCT GCCTGTNTCT CTGGACTCCT GTGTTCTGGG TGCTGGTGCT 180  
GGCTTTCCAA ACAGAGACAC CGCTCCTGTA ACGACTGGAA GCACCAGGCT AAGNACCTNA 240  
CCCCTCGNAC TTNGAAGGAA TGGGCATTNC NGTACTTCAA CATTCTGGGT CTAGGCCTTG 300  
TTGGGGCCAA TTCAAGAAGN GGCCTTGTTN TTNGAAAAA GTGGGCCNNG TTTTNAN 357

SEQ ID NO:2293

LENGTH:355

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02651

SEQUENCE DESCRIPTION:

GATCCTTCTT TTTGGTTTTG GAAATATAAT CATTGTTAAT GTTTCCCTC CAAATAGAAT 60  
ACTGTTTTAT CCATACAAAT CATAACAGCA TCTATCCCAT GCTAGGGTGT GAAACTGATA 120  
TTGGTATTAC TTGTGTTTTT CCTTAGTGTG TTTATTTC CAGTTTCATC TNCTTTTAAA 180  
AATGAAAATA TGGTGCCTTC CCTCCCTCCA GGAAGACTGG CAAATATTNC CTTTATTTA 240  
CTGCTGCTGT GGAGTGATGA GATATGCACT TTA CTCTTA AGATTCAGCA AAAAGCTTTT 300  
CACTTCTCAG TATATCCAGA ATACATCATA TCTGGGACTT AGGAAAATTT GCCAN 355

SEQ ID NO:2294

LENGTH:330

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02652

SEQUENCE DESCRIPTION:

GATCTTTTAC ACCACATCAC AGTGANCACA CTGGGGAGAC GTGCTTTTTT GGNAAACTCA 60  
AAGGTGCTAG CTCCTGATT CAAAGAAATA TTTCTCATGT TTGTTTATC TAGTTTATAT 120  
TTNCATTTAA AATCCTTTAG GTTAAGTTA AGCTTTTAA AAGTTAGTTT TGAGAATTGA 180  
GACACAATAC TAATACTGTA GGAATTGGTG AGGCTTGACT TAAAACTTTC TTTGTACTGT 240  
GATTTCTTTT TGGGTGTATT TTGCTAAGTG AACCTTGTTA AATNTTNGT TAACTAAATN 300  
TTTTCTTAA AATAAAGACT TTTTCACAAA 330

SEQ ID NO:2295

LENGTH:352

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02653

SEQUENCE DESCRIPTION:

GATCCTATGG ATTTTCCCGG CTGGTTGCCA CTACTNTACA ACATTCANAG CCCACATCCA 60

TCTGTGCCAT TAAGCTTTT TGAGACATGA GAGATGCCTC TTCCCTGCTG TATGACATGC 120  
 ATTTGGGAAG TTGGAAGAA ATGACAAAAT CAGGGAGAAA ACATCCAAGC TTCTTACCTG 180  
 TAGATAGAAT CAGCCCTCAC TTGGTGCTTA TTACCAGTTA TTCANGGACA ATAACAACAA 240  
 CAAAATTAGT AGACATNCAT GANGCACATN TTTAGGNCCA AAGGNTAGCA TCAACTTGTA 300  
 TTTNGAAGGG ACTGTAGTTT TCGGCATTTT ATGGCNATTT TTTATNAAAG TN 352

SEQ ID NO:2296

LENGTH:351

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02654

SEQUENCE DESCRIPTION:

GATCGCAGCC GCTTCGCACG CCGCATCACC CAGGCCAGG AGGAGCTGAG CCCCTGCCTC 60  
 ACCCCTGCTG CCCGGGCCAG AGCCTGGGCA CGCCTCAGGA ACCCACCTTT AGCCCCATC 120  
 CCTGCCCTCA CCCAGACCTT GNCTTCCTCC TCTGTCCCTT CGTCCCCAGT NCAGACCACG 180  
 CCCTTGAGCC AAGCTGTGGC CACACCTTCC CGCTCGTNTG CTGCTGCAGC GGCTGCCCTG 240  
 GACCTCAGTG GGAGGCGTGG CTGAGACCAA CTGGTTTGCC TATAATTTAT TAACTATTTA 300  
 TTTTCTCTAA GTGTGGGTTT ATATAAGGAA TAAAGGCTTT TGATTTGTAA A 351

SEQ ID NO:2297

LENGTH:357

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02656

SEQUENCE DESCRIPTION:

GATCCCCGTT CCTGACATCA CAGCAGCCTC CAACACAAGG CTCCAAGACC TAGGCTCATG 60  
 GACGAGATGG GAAGGCACAG GGAGAAGGGA TAACCCTACA CCCAGACCCC AGGCTGGACA 120  
 TGCTGACTGT CCTNTCGNGT NCAGCCNGTG GCCTTGGCTT TTCTAGCCTA TTTACCTGCA 180  
 GGCTGAGCCA CTNTCTTCCC TTTCCCCAGC ATCACTCCCC AAGGAAGAGC CAATGTTTTN 240  
 CACCATAAT NCTNTCTGCC GANCCCTAGT TCCCTCTGCT CAGCCAAGGT TTGTTATCAG 300  
 GTTTTCAGGG GCCATGGGTT CACATTAAGG ATTTAAAAGG GTAGTAATTT GGGGAAA 357

SEQ ID NO:2298

LENGTH:344

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02657

SEQUENCE DESCRIPTION:

GATCAAATTT NAGTGGCTTT GGACAGAAAA GAAGGCTCTG GATTTAAGCG GGTGGTCACC 60  
 TGTGAGACCA GGTCTACCTT GGGACTGTTA TTAACTGAA TCAGTTATTT CCTTGAAATT 120  
 TCACAGTAGT GGGTGGGCCT GTTTAAGGC TCTGACAGAT ACCACGAAAC ATGANGCNCG 180  
 NNGAACTACA AGACCCCGG GGTCTTTCTG AGTGCAAGGC TGAATGGAC AAGGGCTCCT 240  
 CACGGGGGTG GAGGGAGCCG GAGCCTGCCT TGTGTTCCCT TTTTGACTTG TGACATTTTT 300  
 CAAACACATA ATTTAAAGGA CTTATGCTCT GCTGTCTCAG GAAA 344



SEQ ID NO:2299

LENGTH:462

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02658

SEQUENCE DESCRIPTION:

```
GATCTGGTCC CTGAGAAACA TATTGTGATG AAGTGGAGGT TTAAATCTTG GCCAGAGGGA 60
CACTTTGCCA CCATCACCTT GACCTTCATC GACAAGAACG GAGAGACTNA GCTGTGCATG 120
GANGGTCGAG GCATCCCTGC TCCTGAGGAA GAGCGGACAC GACAGGGCTG GCAGCGGTAC 180
TACTTTGAGG GCATTAAACA GACCTTTGGC TATGGCGCAC GCTTATTTTA GGGCCAGCGG 240
CAGGGGACTC CAGCCTGCTG GACACTTCAN GTCCAGCTCT CTCCTGACTG GGGCTTNCGA 300
CTCACAGGAT TGCATCGNCC CAGCTGCTAA CTTNGGGCCG GGGGCCCNCT CCTTNCACAA 360
TATACCTTGG GTTNTGTCAT GTTTTCCTNN CTGGGTTGGG GTTCAGAGGG GCAATTCNN 420
CTTTAATGG TGTACATATN NCTANATANN CATAATTTTA AA 462
```

SEQ ID NO:2300

LENGTH:341

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02659

SEQUENCE DESCRIPTION:

```
GATCAACTTC CCACAACTG AGGAATGAAT TCCACGAGCC TGTCTGAAA ATNTGGACGT 60
AAGACAAACA CGTGCTCGTC CTTTAATGGA GTTCACCAGC ACACTTGTTA ACCAGTCCTG 120
TTTGCTTTCG TCTTTTTTTG TGCCTAATAA AGTCAACTGA CCAAGTGACC ATGAAAAGGG 180
GCTGTCTGGG GCTCCTGTTT TTNAGCTGCT GTTCTTCAGC TCCGACCATG TTGCTGTGTG 240
ATTATCTCAA TTGNTTTTAA TTGAGGCAGA AACTGAAGCT CTACCAATGA ACTGTTAGAA 300
ACAAGACACA CTNTNGTATT AAAATTGCTT GCAGTAACAA A 341
```

SEQ ID NO:2301

LENGTH:339

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02660

SEQUENCE DESCRIPTION:

```
GATCNGTGGC AAAACCAAGT GTGGTCTTTC AGCTTCAGTG TGTTAGCATC CCAGCACCTG 60
GGATGGGGTT TGTGGGCAAG TTGATTTTGC CACACTGTAG GGCCAGGTN NNCCATTGC 120
CACCGTGAAG CCAAATNCTA GCCCAAGTCT GGTAGAGCAG TCGGGCAGCT AGTTTCCGG 180
GGAGGATGAT GTGGTGGGAC AGAGGACCTC AGTGGCCTAT TACGGAGCCC TCTTCCAGA 240
CTAAATTCAT AGCCGAGAGC TCGGGGGGAT GGTAGAGTTA AAATTTAAAA TAATTTTCTA 300
AATTCTGTAT TTGGATATTA GTGTTAAGT GGTAATTTN 339
```

SEQ ID NO:2302

LENGTH:441

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02661

## SEQUENCE DESCRIPTION:

GATCCAGGGG CTGCCTCTGG CCTCTTAGGG AGCAGAGAGC AGAACTCCGC AGCCCAGCCC 60  
 AGAGGAGTGT CACCTCCCAC CTTTGGAGAG GAATCCTTCC CTCCCCTGGA CAAAGTTGCT 120  
 GACAAGCCCC TGAAGTGGCC TCTCCATATT CCAGCTGAGC CTGAATCTGA CTCTTGAGGG 180  
 TTGGGGCTGC ACTTATTTAT TGCGGGGAGA CAGCTCTCTC TCCCACCTNC TCCCAGATG 240  
 GGAGGAGAGC CTGAGGCCCA AGCAGGACCC GGGGGTTCCA GCCCCTAGCT GCTCTGGAGT 300  
 GGGGGAGGTT GGTGGACCAT GGGAGTNCCT GGTGCTGCCC CTNAAGGTGG GACCCAGGCG 360  
 TTNTCAAGCT GTACCCTTTT NCCGATGGAA TTTGTGTTTT TGAANATNNG TGTCTNNTAC 420  
 TANTTNTTTT AAATAAAAAA N 441

SEQ ID NO:2303

LENGTH:336

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02662

## SEQUENCE DESCRIPTION:

GATCATGGCA TCCAAGACCA GAGTCTCAGA ACTCATTAAG AAACAGTTTA CTTGGAATGG 60  
 AGAATACCCA TCTGTAATAC AGGTCTGTG ATTTTCATTCA TCTCAAATTA TTTTGAATTC 120  
 TTCCCAAATG GCTGCTGGAT TTAGGTGGTA ATAGGGGCTG TGGGCCATAA ATCTGAAGCC 180  
 TTGAGGAACC TTGGGTCTGG AGAGCCATGA AGAGGGAAGG AAAAGAGGGC AAGTCCTGAA 240  
 CCTAACCAAT GACCTGATGG ATTGCTCGAC CAAGNCACAG AAGTGAAGTC TGTGTCTGTG 300  
 CACTTTCCAC AGACTGGNGT TTTTGGTNCT GAATAN 336

SEQ ID NO:2304

LENGTH:363

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02663

## SEQUENCE DESCRIPTION:

GATCAAGTNA CTTCTGCCA CCTGGACACA ACACCAAAAA GGCTTCTAAA NACGGGTGTN 60  
 AGTCTTTTNA GCAACCCGGT CCAGTACTGG GAGATACAGC CATCCACCTT CANATGTGTC 120  
 TACGTGCGCT CTGCCATTCA ACTCGGAAAC TATAAGTAAT TCTNAAGAAA GCCCTCATTT 180  
 TTATAACCTG GCAAAATCTT GTTAATGTCA TTGCTAAAAA ATAAATAAAA GCTAGATACT 240  
 GGNAACCTAA CTGCAATGTG GATGTTTTAC CCACATGGCT TTATTATGCA TAANGCCAAT 300  
 ATTTCTGTGTT TTAAGTAATN GCCTTCAATT NNNAAGNTAA TTTTGGCCTG NCCCANAAAT 360  
 AAA 363

SEQ ID NO:2305

LENGTH:232

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02664

## SEQUENCE DESCRIPTION:

GATCAGAGTT CCTCCTACTT ACAACCCAGG GTGTGAACAT GTNCTCCATT TTCAAGCTGG 60

AAGAAGTGAG CAGTGTGGA GTGAGGGCTG TAAGGCAGGC CCATTCAGAG CTATGGTGCT 120  
 TGCTGGTGNC TGCCACCTTC AAGTTCTGGA CCTGGGCATG ACATCCTTN TTTAATGAT 180  
 GCCATGGCAA CTTAGAGATT GCATTTTAT TAAAGCATTT CCTACCAGCA AA 232

SEQ ID NO:2306

LENGTH:330

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02665

SEQUENCE DESCRIPTION:

GATCTTAAGT ATAATTACAA GGAAGAAGTG AAGAAGAATA TTCTCTTAGA AGAGAAGGTA 60  
 AAAAACTTT CAGAACAATT GGGAGTTGAA TTAAGTAGCC CTGTTGCTGC TTCTGAAGAG 120  
 TTTGAAGATG AAGAAGAAAG NNCTGTTAAT TTCCCCATTT ACTAAAGGTC ACCTATAAAC 180  
 TTTGTTTCAT TTAAGTATTT ATTAAGTTTA TAAGTTAAAT ATACTTGGA ATAAGCAGTT 240  
 CTCCGAAGTG TAGTATTTCC TTCTCACTAC CTGGGTACCT TTATACTTAG ATTGGAATTC 300  
 TTAATAAATA GAATTATATG AAATTTTCAN 330

SEQ ID NO:2307

LENGTH:328

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02666

SEQUENCE DESCRIPTION:

GATCGACTTA CTCAACATGA GACAATTCAT ACTGGTGGA ACCACANAAA TGCAAAGAAT 60  
 GTGGTAAGGC CTTTAGTCAT TGCTATCAAC TTAGTCAACA TCAAAGATTT CACCATGGTG 120  
 AGAGACTCTT AATGTAATGA GAGGGAAAGC CTTTAGCCAT GGAACATTTT TACTGTTGTC 180  
 ACTATTATNA TGCTATAGTG AAGATTAAAC TAGTTAATAT AGAATATAAA TACTTGGA 240  
 GGCATCTGGC ACATCGTATT TGCTTACTAA ATACATTATT TTTATGATAA TTGTTAGAAT 300  
 TACTAAAAAT AAATCTTATA GAAGGAAA 328

SEQ ID NO:2308

LENGTH:327

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02667

SEQUENCE DESCRIPTION:

GATCTCAGGT ATCAGACCAC TGAGCAACCC ACCGCCAGNC TGCAGGCTTT CAGAGGCCCA 60  
 CCTGGGCCCA GCGTGGCCTG CCCCAGGGTG GGCTCCCAAGC GCAACTGCAG GCATCCTCTA 120  
 GTGGGGCCTC TGGAACCCCT AGCAGATGGT GGTGACCCCT CTGAGATGAG GAAGCTGGTG 180  
 ACCTNNGACT GAGCAGCAGC CTATGGGCTC CGGGTCAAGT GCTATTCCCA GCGGATGCC 240  
 TTCCCCTTGC GNCAGTCCCT CCTTNTCTGA GTGTCCAGGC GCNANTGNAA AACAGNAACC 300  
 CTAGGGTCTG GAACTACTT TTTTNTN 327

SEQ ID NO:2309

LENGTH:326

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02668

SEQUENCE DESCRIPTION:

```
GATCCAGTTG TTATAGTGAA CTCATGGTAA TGGTTTGTGA GAACAATAGA GATTTTNATT 60
TCTATGTAGA TGAGTTGGTA TGAGAATATA TGGAATTTT AAGGGACTGT TTAAATCTTT 120
GATTTGTAGA CTATTAAATA TACCGTATGC ATAAAGTAAG CCTTAGCTC TAAGGTAAAG 180
ACGACACGTT TTCGGTTTGT GACTACAAAT AGGTAAAAA TAGATTTTAA TTTTATTAAA 240
AATATAATTT AATGCAGGTT GTTTGAAGCA TCTGTCTTCA TATGATGGCA TTAGAACACC 300
TTGGTATAAT AAAAAGTTAC CGTAAA 326
```

SEQ ID NO:2310

LENGTH:322

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02669

SEQUENCE DESCRIPTION:

```
GATCAAGAAG GAGCTAGAGA CCATTTCAAA GAAAAAAAT GCTTTATAGA GTTTTAAGTA 60
TGACTTAGAT GGGTCCAGGC AAATAAACTA AAAAGAAGTG AAGGCAACAT GTATCGTCTG 120
GCAGAACTAA ATCTTGGAGT GGGGTGAGGG ATGAAAGACT ACATATTGGG TACAGTGTAC 180
ACTGCTCGGG TGATGGGTGC GCTAAAGTCG CAGAAATCAC TAAAGAACTC ATCCATGTAA 240
CCAAACACCA CCTGTACCCC AAAAACGAAA TAAAAAACA AACCTTGGG GCCCATTCCC 300
CCTAGGAATG GACTACTGTA AA 322
```

SEQ ID NO:2311

LENGTH:321

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02670

SEQUENCE DESCRIPTION:

```
GATCTAAATT ACCTTGGGTT TCGCATATGT CTATGAAATN CTGTGATAAN GTTTTCAAT 60
ACATTGN TTC ACTGGCGTCT GTTTTCANTT TATACTTTTA ATAACATC ACTGGTGGTA 120
CTTTATCTTG AAAAGTAATA TTTTNTATAT TITANCATTG GACAGTGTTA GCCAGTTGTA 180
ATGATGTATC AGANGTAAAG AAAAACCCAT TAAAGTTATA GCTAATAGAT GCTGTTGGGG 240
GTTAAATTAA TAGTAAANTA ATCCAATATA GCACTNTNNA TGATTTNTTA TATAAANGTC 300
AACTGGTACA TTTCATT CAG N 321
```

SEQ ID NO:2312

LENGTH:319

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02672

SEQUENCE DESCRIPTION:

```
GATCGAAGGG TTTT TAGAGA ATGNTTTC AAACCATGCC TGGTATTTTC AACCATAAAA 60
GAAGTTTCAG TTGTCCTTAA ATTTGTATAA CGGTTTAAAT CTGTCTTGTT CATTTTGAGT 120
```

ATTTTAAAA AATATGTCGT AGAATTCCTT CGAAAGGCCT TCAGACACAT GCTATGTTCT 180  
 GTCTTCCCAA ACCCAGTCTC CTCTCCATTT TAGCCCAGTG TTTTCTTTGA GGACCCCTTA 240  
 ATCTTGCTTT CTTTAGAATT TTTACCCAAT TGGATTGGAA TGCAGAGGTC TCCAAACTGA 300  
 TTAAATATTT GAAGGGAAA 319

SEQ ID NO:2313

LENGTH:327

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02673

SEQUENCE DESCRIPTION:

GATCGACAAA ACTTTGAACG AGGCTGACTG TGCCACCGTC CCGCCAGCCA TTCGCTCCTA 60  
 CTGATGAGAC AAGATGTGGT GATGACAGAN TCAGCTTTTG TAATTATGTA TAATAGCTCA 120  
 TGCATGTTTC CATGTCATAA CTGTNTTCAT ACGCTTCTGC ACTCTGGGGA AGAAGGAGTA 180  
 CATTGAAGGG AGATTGGCAC CTAGTGGCTG GGAGCTTGCC AGGAACCCAG TGGCCAGGGA 240  
 GCGTGGCACT TACCNGNGGT CCCTTGCTTC ATTCTTGTTGA GATGATAAAA CTGGGCACAG 300  
 CTCTTAAATA AAATATAAAT GANCAAA 327

SEQ ID NO:2314

LENGTH:313

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02675

SEQUENCE DESCRIPTION:

GATCAACCAC ATGCACATCC TTACTIONACA ATCCGTCCTT TCATTTCAAC ATTATAGCAA 60  
 GCTATGATTT TNATATATAA ATATTATATA AATNANGTAT AANACATTAA AAGTTAACTA 120  
 TGTAAGATAT TATNTCTGAA ACAATTTAGC TATATCCACT ATGATTATAA ACTGTGTCTC 180  
 GACCTGTGTT ATNTACANAA GCTGCTTAAA AAAGCATTGA GTTAATTTTN TTAAATATCA 240  
 ACTAAATAT CATAGTTCTG TGGNNGACAT TGTGTTATAA TGANATAACT GCAACTAGAG 300  
 AAANCTGTAT AAN 313

SEQ ID NO:2315

LENGTH:365

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02676

SEQUENCE DESCRIPTION:

GATCGAGGAC ATAAGGAACT AGTCACAGTG TTGCTGCAAC ATAGAGCTGA CATTAACTGT 60  
 NAGGACAATG AAGGCCAAAC AGCTCTACAT TATGCCTCTG CCTGTAAGTT TCTGGATATT 120  
 GTAGAGCTGC TGCTCCAGTC TGGTGCTGAC CCCACTCTCC GAGACCAGGA TGGCTGCCTG 180  
 CCAGAGGAGG TGACAGGCTG CAAAACAGTT TCTTTGGTGC TGCAGCGGCA CAACTGGC 240  
 AAGGCTTAAT CAAAAGACTG GAAAAGTCCA GTCTGTAATA GCATAAGGCT TCCATTATGA 300  
 AAGAAAATA CAGAAATAAT ACTTCTTTTC CACCCGCTTT TGGTATGTAT TGGCTTATAA 360  
 AATTN 365

SEQ ID NO:2316

LENGTH:308

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02677

SEQUENCE DESCRIPTION:

GATCCTGGAG CTGGCTGGCA ACGCGTGCCT NACAACAAGA AGACCAGGAT AATTCCCCGC 60  
CACCTGCAGC TCGCCATCCG CAACGACGAG GAGTTAAACA AGCTGCTGGG CAAAGTGACC 120  
ATCGCTTAGG GCGGCGTCCT GCCCAACATC CAGGCCGTGC TGCTGCCCAA GAAGACGGAG 180  
AGTCAGAAGA CGAAGAGCAA ATNACCCTGA CGCCGNCCTC AGGGAGCTGN CTNCGNCANA 240  
TAAGGCCCTT TTNATGGTCG TCCCGCAATG CTTTGAATG TGCTGGNTGT CATGGAGGGC 300  
CGGTGACN 308

SEQ ID NO:2317

LENGTH:306

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02678

SEQUENCE DESCRIPTION:

GATCTAGATA ACTCATGACA TTTTATTTGA CCAACATAGC ACATGATGAG ATATCAAGGT 60  
AATTAATAA GCATGCTTGA AAAAAAATA CGTAATCTGT TTCACCTGTA ACTGTTTAAG 120  
CCAATAAACT TTTCAAAATT TATGTAATGT GGGGCTTTA TGTAGCACTT TACGTTTCA 180  
TGCTGCTTAT TGTTTTATTC TACTGAAAAA AATGANNTTC AAGATTCTCA ACTTNTTAA 240  
TTTCAAAAT NGTTTATGGT TTTGACTATA GGAATACAAA ANTCCTATT TNGGGNGAAT 300  
AAGAAA 306

SEQ ID NO:2318

LENGTH:305

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02679

SEQUENCE DESCRIPTION:

GATCCCCTGG CTCCCAGCA CACATTCCTT TGAAATAAGG TTTCAATATA CATCTACATA 60  
CTATATATAT ATTTGGCAAC TTGTATTTGT GTGTATGTAT ATATATATAT GTTTATGTAT 120  
ATATGTGATT CTGATAAAAT AGACATTGCT ATTCTGTTTT TTATATGTAA AAACAAAACA 180  
AGAAAAAATA GAGAATTCTA CATACTAAAT CTCTCTCCTT TTTTAATTTT AATATTTGTN 240  
ATCATTTATT TATTGGTGCT ACTGTTTATC CGTAATAATT GTGGGGAAAA GATATTAACA 300  
TCAAA 305

SEQ ID NO:2319

LENGTH:303

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02680

SEQUENCE DESCRIPTION:

GATCGAAATC ACTATAATTT TAACCCCTNGT GATTGGAATG AATATGGTTT GTGCTGGAAG 60  
 CTCCGAGGTG GAAGAGACTC GTGCAATGGA GATTCTGGAA GCCCTTTGTT GTGCGAGGGT 120  
 GTTTCCGAG GGGTCACTTC CTTTGGCCTT GAAAATAAAT GCGGAGACCC TCGTGGGCCT 180  
 GGTGTCTATA TTCTTCTCTC AAAGAAACAC CTCAACTGGA TAATTATGAC TATCAAGGGA 240  
 GCAGTTTAAA TAACCGTTTC CTNTCATTGA CTGTGGCTTC TTAATCTTTT CACAAATAAA 300  
 ATN 303

SEQ ID NO:2320

LENGTH:302

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02681

SEQUENCE DESCRIPTION:

GATCCCTGCT GAATCCACAG GCCAAAATAG TCAATGTAAC TGCAAATCTA ATTTTCATCCT 60  
 CCTTTCCTGA GGCCAACCTCA GGAAATNAAA GGACGATTCT AATTTCCACT GCGGTACTT 120  
 TTGTGGATGT GTCTGCACCT GCAGAGGCAG GCTTCANAGC TCCACCAGCC ATCAATGCCA 180  
 GGCTGCCCTT TAACCTCTTC TTCCCGTTG TTTGACAATG CTCAGATGCA TCAGTTCCTT 240  
 AATATACACG TGAAATTGA AAAGTGTACA TTCGGTGAGA TTAAATTTTA TATACAACTA 300  
 AA 302

SEQ ID NO:2321

LENGTH:301

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02682

SEQUENCE DESCRIPTION:

GATCCAATTA AAAAAAATTA AAACCAATTT AAAAAAAAAA AGANCACAGG AGATTCCAGT 60  
 CTAATTGAGT TAGCATAATA CAGAAGTCCC CTCTACTTNA ACTTTTACAA AAAAGTAACC 120  
 TGANCTAATC TGATGTNAAC CAATGTATTN ATTTCTGTGG TTCTGTTTCC TTGTNCCAAT 180  
 TTGACAAAAC CCACTGTTCT TGTATTGTAT TGCCCAGGGG GAGCTATCAC TGTACTTGTA 240  
 GAGTGGTGCT GCTTTAATTC ATAAATCACA ANTAAGGCC AATTAGCTCT ATAACANAA 300  
 A 301

SEQ ID NO:2322

LENGTH:345

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02684

SEQUENCE DESCRIPTION:

GATCAAGCGG AAAGAGTTTA AGTGTCTAAC AAACCTAAAG CTAAGTAGT ACCTAAAAAG 60  
 TCAGTGTGTG ACATAGCATA AAAACTCTGC AGAGAAGTAT TCCAATAAG GAAATAGCAT 120  
 TGAAATGTGA AATACAATTN CTGAAAGTAA TGTTTTTTN CTATCATCTG GTATACCATT 180  
 GCTTTATTTT NATAAATNAT TTCCTCATTG CCATTGGAAT AGATATCTCA GATTGTGTAG 240  
 ATATGCTATT TAAATAATTT ANCAGGAAAT ACTGCCTGTA GAGTTAGTAT TTCTATTNN 300  
 ATATAANGTT TGCACACTGA ATTGAAGAAT TGTTGGTTTT TTCCN 345

SEQ ID NO:2323

LENGTH:299

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02685

SEQUENCE DESCRIPTION:

GATCTTTTCT AATATGGTAT TACAATGAAA AGAATAAAGA GAAGATTGGA ATTNCAAGTT 60  
TCATTTTCAA AAACATATTA CCAAAACAAA TGGAGAAGAA ACATCCAAAA GCACATTTC 120  
TTTCTCCAAA CTGTGTGTTT TAAATTATAG TTATAAATNG TAAGGTAATT TTAAATTGTC 180  
CCTCGTATTA TTNCTCCACG CCTGTTTtag TNTNNGGTCT CCTAAGCTTT TCTCTCATAG 240  
CGTAGACCTA GGGAAGGGAT GGGAAGATTG CCCAGTCCCC GATGGCTGCG CACACAGGN 299

SEQ ID NO:2324

LENGTH:297

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02686

SEQUENCE DESCRIPTION:

GATCCCTCTG TACAGGCTGG ATGGAAGGGG CCCTCCACAC TTCCTGGGAG GTCAGAGACA 60  
AACTGTTTCA GAGAGTCAGA TGGACTTCCC AAGACTTGTT GAGAGATGTG ACATGGTTCT 120  
TGGATTTCCT CTGTAGCAGC CTCCTGGACT TCCTGAGGAC TCGACATTGT CCACAGATGT 180  
ACTGGCCATT ACATGAAACA AGAAACCAAG CATCTTTGCT GTTGTTAATT ATTATATGTG 240  
CCATTGTTAC AGGAGATTAT AGGCTAGTCT GTAATAAATT ATCTTATAGC AGCCAAA 297

SEQ ID NO:2325

LENGTH:297

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02687

SEQUENCE DESCRIPTION:

GATCAGCAGC CGAGAAAAGT ACATCAACAA TCAGCTTGAG AATTGGGTTT AAGAATATCG 60  
TGCAGCTCAA GCCCAGCTGA GTGAGGCAAA GNAGCGATAC CAGCAGGGAA ATGGAGGNGT 120  
GACGGAAAGA ACCAGACTCC TCTCTGAGGT TNNGGAAGAA TTAGAAAAGG TAAAACAAGA 180  
AATGGAAGAA AAGGCGAGCA GCATGACTGA TGGTGCTCCT TTGGTGAAGA TTAANCNNNG 240  
CTTNNCANAA CTGAAGCAAG AANCTGTAGN GATGGACATT AGANTTGGCA TTGTGGN 297

SEQ ID NO:2326

LENGTH:297

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02688

SEQUENCE DESCRIPTION:

GATCCNACTT TAGAAGCCTA CTTTNTAACC AAGGAGCTCA ATTTTTTTTT TAAAGCTTTA 60  
CTAATCTACC ANAGATTGT AGATATTTTT TTTTAACATC TATTGTTTAA AATAGATNAT 120



TATAACGGGG CAGAGAACTT TTTTTCTCT GCAAGAATGT TACATATTGT ATAGATAAAT 180  
 NAGTGNCATT TCATACCATG TATATATAGA GATGTNCTAT AAGTGTGAGA AAGTATATNC 240  
 TTTAATAGAT ACTGTAATTA TAAGATATTT TAAATTAAAT ATTTTTTGT AAATAAA 297

SEQ ID NO:2327

LENGTH:324

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02689

SEQUENCE DESCRIPTION:

GATCCTATGT CTGTCTGTCC ACCACGAGAT GGGAGGAGGA GAAAAAGCGG TACGATGCCT 60  
 TCCTGACCTC ACCGGCCTCC CCAAGGGTGC CGGCACTCTG GGTGGACTCA CGGCTGCTGG 120  
 GCCCCACGTC AAAGGTCAAG TAAGACGTAG GTCAAGTCCT ACGTCGGGGC CCAGACATCC 180  
 TGGGGTCCTG GTCTGTNAGA CAGGCTGCCC TAGAGCCCCA CCCAGTCCGG GGGGGNTGNN 240  
 GAGCAGTCC AAGACCACCN CACCNCTTT TGTAATNTT GTTCATTNTA ANTCAAATAC 300  
 AGCGTNTTT TCANTTCTGG GAAA 324

SEQ ID NO:2328

LENGTH:291

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02690

SEQUENCE DESCRIPTION:

GATCTGCAGG GGTCTGGGAG TCAGGCCCGG CCTATTGCTT GGGTCTCTCT CTATTTATAT 60  
 ATCTAAGTTC ACAGTGTTC TTATCCCC TAAGCTTCTA GAGGCTCATG GCCCTGTAGT 120  
 TAGGCCTGGC TCATTCTGCA CCTTTCCAGG GAGGTGGAAG GACCCTGTGC CCTCCTTCCC 180  
 AATCTTCTTT TTCAGGCTCG CCAAGGCCTA GGACCTATGT TGTAATTTTA CTTTTTATTT 240  
 CTAAAGTTGT AGTGAAGCTC TCACCATAA TAAAGGTTGT GAATGTTCAA A 291

SEQ ID NO:2329

LENGTH:290

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02691

SEQUENCE DESCRIPTION:

GATCTAGAAT CTCTTTATGT TCTCCAGAGG AAGGTGGAAG AAACCATGGG CAGGAGTAGG 60  
 AATTGAGTGA TAAACAATTG GGCTAATGAA GAAAATTCT CTTATTGTTT AGTTCATCCA 120  
 GATTATACT TCAATGGGAC ACTTTAGACC ATTAGACAAT TGACACTGGA TTAAACAAAT 180  
 TCACATAATG CCAATACAC AATGTATTTA TAGCAACGTA TANTTTGCAA AGATGGNCTT 240  
 TANAAGATGC TGTGTAGCTA ANCTGAANTA ATTCATTAC TTATTATTN 290

SEQ ID NO:2330

LENGTH:231

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02692

## SEQUENCE DESCRIPTION:

GATCACTCCG CCTTNTCCTG GGCTCCCGTA GCACACTATA ACATCTGCTG AAGTGTGCT 60  
 GTTGACCAT ACTTCTTGT ACATTTGTGT CTCCCTTCCC AACTAGACTG TAAGTGCCTT 120  
 GCGGTCAGGG ACTGAATCTT GCCCGTTTAT GTATGCTCCA TGNNGGNCC ATCATCCTGC 180  
 TTGNGCAAG TAGGCAGGNG CTCAATAAAT GTTTGTGCA TGNNGGNAA A 231

SEQ ID NO:2331

LENGTH:285

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02693

## SEQUENCE DESCRIPTION:

GATCGCCTAC AAGCCAGCCC CTGGCACCTG CTGCTACATC ATGAAGATAG CTGCAGAGAG 60  
 CATCCCCAGT CTTGAGGCTC TCAATAGAAA AGNCCACAAC TTCCAGATNG AATGCTCTCT 120  
 GCAGGCCAAG CCCGCAGTGC CTACGTCTAA GCTGGGCCAG GCAGAGGGGC GAGATGCAGG 180  
 CTCAGCACCC TCCGGAGGGG ACCCGGNCTT CCTGGGCATG GCCGTGAACA CCCTGTNTGG 240  
 CGAGGTGCCG CTCTACTACA TCTAGGACGN CTCCGGGTCA TGTGN 285

SEQ ID NO:2332

LENGTH:285

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02694

## SEQUENCE DESCRIPTION:

GATCTAGAGG TTCCANTGCT ATNCTCTCTT CTTGTCTGAG AGCCAGGACC CTGGGGGAAA 60  
 TAACGGGCAA AAAAGCACTT TNAAGACAGA TATAGTGGGA ATTNATAAAC GACTTGATAG 120  
 AAACAGAAAT GAACTGTTTT ATTNATNCT CTGAGGACTC TGCTCATCAC CCANTAGTAC 180  
 CATTTCTTTT CTCAGAATGG ATTCTTTCCC CTATCTATCT AATCATTAGA GATGTAGCTA 240  
 NGAAATTACA TGTATGCATA TGTNTAATAT GTATATGTNT ATGTN 285

SEQ ID NO:2333

LENGTH:283

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02695

## SEQUENCE DESCRIPTION:

GATCTTAAAG CTTGAGCAC CTGCCATTTT GCCTTGCATC GTTCCCTCG TCATGCATTT 60  
 CCACATATCC ACAACACAG AACGACTTTA GACAAGCACA TGTTACACCT GTGTTGCCAC 120  
 AAGCAGTCAT TCTTGACGGC TCCAGTTTTT ATTTGACACT TGAGTTTAGT TTTCTCTTTT 180  
 ATAAACCCAG TGAATCCTG CACTGGCATT TGGATGTGTG TTAATGCTAT TTGTTTGTG 240  
 TTTAAAGTAA AACCTTTCTC AGTTTGAAC TGTATTCTCT AAA 283

SEQ ID NO:2334

LENGTH:283

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02696

SEQUENCE DESCRIPTION:

GATCTATTAA AAAGGTTAAG AGGCCAGGTT ACCCACCANT CCTTGCACTG TNCTGACACT 60  
 TTCCCCAGGA GGAAAACAAG TACAAAGGTT ACGGTGGAGG CATAAGTAGA AGAGATTGTN 120  
 AAGAAGGGTA ATTCATGTNT CTTTGCTCTT NCTGCTTTAT GCCTCANTTT GGTTTAAAAA 180  
 CTTCTNTACT GGCAAATGGT GGTATTCAGT GTGGGATAGT GTCATAACTA ATTTGACAAT 240  
 TTATTAATGA TAAATAACA ATAAATGTCT AGCTTTTACA AAA 283

SEQ ID NO:2335

LENGTH:283

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02697

SEQUENCE DESCRIPTION:

GATCACAAAA AAATCAGTCT TTAAGCATTT GCTTGGAAG GTTCTTAAN ATNAGGTTTA 60  
 TAATACAACC ATCTGTAATG TATCTNTCGN TTGANCTTGT GGGCCATACA ATTCATTAAC 120  
 TAGATGNATA CATTGTGGAC AGCATCCTCA CTACCCCTCT CTACTCACTC ACAAAGAACC 180  
 ATGATACACT GGAATGTTTT TNTNTGGAAT CCTCTTTCTA CTCTTGATT AAAATTTTNC 240  
 CCCACTTCAT GATTATATNC AAAATAACA ACTACATCAT AAA 283

SEQ ID NO:2336

LENGTH:282

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02698

SEQUENCE DESCRIPTION:

GATCAGCTTG CAGAGTCTTG CTTTAGGTT AGATACAAAC AAAGTAAATC ATAGTTGGTG 60  
 TAAATCCAGC AAAAAACAGC TGGCTTTGGA ATGGAGAACA CTACAATTCA AATTTGAAGT 120  
 ATATTCAGAA GAAACTTTG GAATTAGCTT TACATTTGTT TGTAAATCTA AACAAATNTG 180  
 CAAAATTGGT CAAAATGTAA GTNTATNGCA TTTTAAAGA TTANTGGTTC CTTTATGTG 240  
 CTGATTTCTT TGTATTCTGT TCTCTGCATT CATCATTCAG GN 282

SEQ ID NO:2337

LENGTH:284

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02699

SEQUENCE DESCRIPTION:

GATCTGTACC ACACCTCCG GCCAGCTGTC CTCCTGCTGA TGTTCCCTCAG TGTCTACAAG 60  
 GCCTTTGTA TGGAGACCTT CGTCCACCTC TGCTCGCTGG GCAGTTGGGC AGCTCTACTG 120  
 GCCCGAGCAG TGGTAACGGG GCTGCTGGCC CTCAGCACTT TGGCCCTGTA TGTCGCCGTT 180  
 GTCAATGTGC ACTCCTAGGC TTGGTGTCTC AGACATTTGA TGTACCTTTT CCCTGNCTCG 240  
 NTCCAGGTTT TTAGTGAAGT AAACAGGTAT TTTGGAAAGT TAAA 284

SEQ ID NO:2338

LENGTH:280

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02700

SEQUENCE DESCRIPTION:

GATCAACGAC AGCCTCCAGT TTCCACTTNG TGAGAGAACA AAGGAACCGG GGCATGCTCA 60  
NCTATGGCTG CAAGCCNTTC AAGTGAAGCT GGGCACTTAC CCCCTTNATT CCATTCTCCT 120  
CAGGATAACA GATTAAAATT CCAGAAGTGT GCACCTGTNG TNTATTCAGG AGATTNTCGT 180  
TNTGCATAAA GAGACCACTT GAGGCCCTGT AAGCAAAGAC TAATTNGGTC TNAGTCAAAA 240  
TCTTGGGAAT CTGATNAACT AACACACTCA AATGAAACTN 280

SEQ ID NO:2339

LENGTH:285

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02701

SEQUENCE DESCRIPTION:

GATCTGGAGC AGGAAGGCCT CGAGGCACAC AGGGGCTGCT GGCCGGCGAG TGGGCCCCAC 60  
CCCTCTGGGA GCTGGGCAGC CTCTTCCAGG CTTTCGTGAA GAGGGAGAGC CAGGCTTATG 120  
CGTAANTCA TAGCTTCTNC TGGCCTGGGG TGGACCCAGG ACCCTGGGG CCTGGGTGCC 180  
CTGAGTGGTG GTAAAGTGGA GCAATCCCTT NACGCTCCTT GNCCATGTTT TNAGCGGNCA 240  
GNTTGGNTTT NNCCTTNAAT AAATNTGCTT TATTNCTCT TCAAA 285

SEQ ID NO:2340

LENGTH:320

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02702

SEQUENCE DESCRIPTION:

GATCGTAAAC TTGTTGATAA AGAAGATATC GACACTAGCA GCAAAGNAGG CTGTGTCCAA 60  
CAGGCTACTG GCTGGAGGAA AGGGACAGGC CTGGNATATG GCCATCCTGG ATTGGCTTCA 120  
TCAGAGGAGG CTGAAGGCCG GATGAGGGGC CCCAGTGTTG GAGCCTCAGG AAGAACCAGC 180  
AAAAGACAGT CCAACGAGAC TTATCGAGAT GCTGTTCGAA GAGTCATGTT TNCTCGATAT 240  
AAAGAACTCG ATTAAGNAAG GNGNCAAGTT CCATGGGATA CAACCTACCT CTTGTTTTGT 300  
TTGTCTCTCC TTTCTTTTN 320

SEQ ID NO:2341

LENGTH:519

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02703

SEQUENCE DESCRIPTION:

GATCTGAAAG GAGCAAGGAA CAGCAAGGAA TTATTTTCCA GAATGACACC CGCAGCAGAA 60

TGTGGAGTG GAAATGATGG CTGGCTATGA AGAGGAGGTC AACGTGTGTG GTCTCCTCAG 120  
 TCTCTGTGAG AGGGGTGGGG AGGTGGGAAA CAGGAATCCT CTGCAAAGCC CAATCTGCAG 180  
 AGTCGAGACC CCTGGTGCTC TCTGCCCCGC TGCCTGGCAC TGGTCCTTTG CAGCCAGCCA 240  
 CCAACGGCCC CCTTGGCCCTT NCAGAGGCAG AAGCCTNCGT CTNAACCTGC ACCTCTGACC 300  
 GTTNAGCAC CNTTGGGTTN TTACCANGTC CTANAACCTCT GANATTTNTT NGTTCTAAAA 360  
 GGGGTTTCTA TTTCAACTTG NTGAGTTGT NTTTTGGGNC CTTCCAATTT GGGNTACCTT 420  
 GNTATNTTN ATGTTTTAT AAATCCTTNA CTCTTGGNAN GTTTAATTN TTTACAAAAT 480  
 CAGGGATAAC TTTNGTTTNA ANACTGGTTT GAAGGAATN 519

SEQ ID NO:2342

LENGTH:272

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02704

SEQUENCE DESCRIPTION:

GATCCCAACT AATTTTACCG AACCTAAAC CCACAAAGAG GTTGTGTTG TTATTGTTCA 60  
 ATCTTCAGTT GTAAGAGTAA TTCTCTATTT TNATATTGAA ACATAATTAC TTGATAGCTC 120  
 AGGGTCTACA TTTCATTCAA CTTTTTACAC CAAATTCTGC AGAGTGGTCA AAATGGAATA 180  
 TTGGGGGCTG TTGTAAACAG AGGCTTAATT TTATTAGAAG TAGCCAGTTA TTTATTAAAG 240  
 CATGATGTTA AAAAAATAGG CATATTCTGA AA 272

SEQ ID NO:2343

LENGTH:272

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02705

SEQUENCE DESCRIPTION:

GATCTGACAT GATTCTTCC TGTCTGAAC TGTGGGGTGT GCACATCTCT ACTTGAGTCA 60  
 GGTNNAGTA GAGGCTTAGA GACAGTTAGG TGAGAACAAC CAAAATCTTA TCATGGTCTC 120  
 AGTCANNATC ATTAGGGGGA ACTCTAGCCA AATNGTTTAA CTTCTGCCTG TGGAAGTGGG 180  
 GATTGGGTGG GCAGGAAAAG GTGATATCCA TTCTTTCTGA TAACTAGATG GTGCTGAGAA 240  
 GCTTTTGAAT AAAAATTTG CTAAATGAGA AA 272

SEQ ID NO:2344

LENGTH:273

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02706

SEQUENCE DESCRIPTION:

GATCTTTCCC AGGCCGCACC ATTTCTNTCA CTCACATGGA CCCAAGATAN AAGAATGGCC 60  
 AAACCCTCAC AACCCCTGAT GTTGAAGAG TTCCAAGTTG AAGGGAAACA AAGAAGTGT 120  
 TGATGGTGCC AGAGAGGGGC TGCTCTCCAG AAAGCTAAAA TTTAATTTCT TTTTCCTCT 180  
 GAGTTCTGTA CTTCAACCAG CCTACAAGCT GGCACNGCT AACAAATCAG AAATATGACA 240  
 ATTTAATGAT TAAAGACTGT GATTGCCACC AAA 273

SEQ ID NO:2345

LENGTH:277

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02707

SEQUENCE DESCRIPTION:

GATCCATGAA GCTGCCCTGC CCACGCCTCC CCTCCCTGTA GCAACACCTC TGGGTGTTTG 60  
GAGTTTAGCT TTTGTGGGTT TGCTCTCCCT ATCCCATCTC CTGTACTACA CAGTTCATGG 120  
CAGGGTGGGG AGNNGTGGGG TTGGTTCGGG TGGGTGAGGG TCTTTTCCT CTGTGTGCGA 180  
TGTGTATTATC TGACAGNTCT CCGTCCCTAC TGGCCTTTCT CCTCGTCTTC ATATTGTAC 240  
GGTACAAGCA ATAAAGACAC TCATTTCAGA CCAGAAA 277

SEQ ID NO:2346

LENGTH:431

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02708

SEQUENCE DESCRIPTION:

GATCTTNCTA GGAGGGAGAC ACTGGCCCTT CAAATCGTCC AGCGACCTTC CTCATCCACC 60  
CCATCCNTCC CCANTTCATT GCACTTTNAT TAGCAGCGGA ACAAGGAGTC AGACATTTNA 120  
AGATGGTGGC AGTAGAGGCT ATGGACAGGG CATGCCACGT GGGCTCATAT GGGGCTGGGA 180  
GTAGTTGTTT TTCCTGGCAC TAACGTTGAG CCCCTGGAGG CACTGAAGTG CTTAGTGAC 240  
TTGGAGTATT GGGGTCTGAC CCCAAACACC TTCCAGCTCC TGTAAACATAC TGGCCTGGAC 300  
TGTTTTNTCT CGGCTCCCA TGTNGTCCTG GTNNCGGTTT TNTCCACCTA NACTGTAAA 360  
CCTCTTCGAG GGCAAGGGAC CACACCCTGT AACTGTTCTG TGNCTTTTAA CAGGTTCTN 420  
CCATTAATGC N 431

SEQ ID NO:2347

LENGTH:268

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02709

SEQUENCE DESCRIPTION:

GATCTTTTGT GTCTGGTTCC TTTCACGTTG AACGCTATTT TTAAGGTTTCG TGCCTGTTGT 60  
AGACCACAGT CACACACTGC TGTAAGTCTTA CCCCATCCTC ATCCCAGCT GCCTCCTCCT 120  
ACTGTTTCCC TCTATCANN NGCCTCCTTG GCGCAGGTTT CCTGAGCTGT GGGATTCTGC 180  
ACTGGTGCTT TGGATTCCCT GATATGTTCC TTCAAATCCA CTGAGNATTA AATAAACATC 240  
GNTAAAAGAA TGACCTTCCC AAGGNAAA 268

SEQ ID NO:2348

LENGTH:268

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02710

SEQUENCE DESCRIPTION:

GATCAGAAAC CAGTCTCCTT CCCCGTAGTC TGGACTGGGT ATCCCCTCTT AAATNTTTC 60  
 AAAGCAACAC AAATTTAATT CCGTCACAGA ACTTGCCACT CTGTGCTGTG TCCTCTGTTT 120  
 CCTTGCCATC TTCCTCAATN AGCTGGAAGC CCATTGGCAG CAGGGACTGT TTCTTGTTCA 180  
 CAGCTGCACC TCAGTGCTAA GCATAGTGCC TGGTAGGTAA TAGACTCCTT AAGTATTTGT 240  
 TGAATTAATA AAGGATGNNT TTTTAAAA 268

SEQ ID NO:2349

LENGTH:268

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02711

SEQUENCE DESCRIPTION:

GATCAGAAGC CATTNNATTT GGTAGGTGTG TCAGAAGGGA GAATGATGGN AGACGAACTG 60  
 CTGGAAGAGG TCAGAAGATA GCCATGCTAA AATGCAATTA TATCCTCATG TTTATCCCAA 120  
 ACTAATCTTG GACTTTTCCA CTCATTAGCT TTGTTNTGCC CTTGTTTCCC TTGAAGGTTT 180  
 AAGTTCAACC ATATTCTGTC AACTGTTTCAG TTTCAGTGGA ATCTTGATT TCTGGTTCAT 240  
 TATAACAAAC TGTTGCTTA AATCCAAA 268

SEQ ID NO:2350

LENGTH:398

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02712

SEQUENCE DESCRIPTION:

GATCCGAGAA CGCTCTAAGC CTGTCCACGA GCTCAATAGG GAAGCCTGTA ATGACTACAG 60  
 ACTTTGCGAA CGCTACGCCA TGGTTTATGG ATACAATNCT GCCTATAATC GCTACTTCAG 120  
 GAAGCGCCGA GGGGCCAAAT NAGACTGAGG GAAGAAAAAA AATCTCTTTT TTTCTGGAGG 180  
 CTGGCACCTG ATTTTGTATC CCCCTGTAGC AGCATTACTG AAATACATAG GCTTATATAC 240  
 AATGCTTCTT TCCTGTATAT TCTCTGTCT GGCTGCACCC CTTTTCCNG NCCCCAGATT 300  
 GNTAAGTAAT NGAAAGTGCA CTGCAGTGAG GGTCAAAGGN GAGGCAACAT ATTNTNNTT 360  
 TCCATAATAA AACTTTCTTG GGGGNNATAC TTTTCAAA 398

SEQ ID NO:2351

LENGTH:381

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02713

SEQUENCE DESCRIPTION:

GATCTGCAAG CATTTGCTCT TGTTTCCACA TCACCTCTGG GATATTTTCAG CTGTTGTTTC 60  
 CAAATGGCAA ATCATCAACT AAANGCACT GTTCAAGTT TTGTTCTGCA CTCCCACGAC 120  
 TGAAGTTGTA GATTGAGCTG AATAACCATG GGAAGTGANC AAGCAAAGAC ACTCGATTGG 180  
 AGTCAGTTGA ATATTTGTAC CCTCAGTGGA GCCCTTCTGG TCTTTCTTC CACTTCTGCA 240  
 GAATTCCTC TAGCAAATAC TTCTTCTCC TTGCTTGCCT CCACCATGAT ATTTGAATAA 300  
 GAGATGGCCA GAGGATAACA CTTGTCTCTT AAAAATAAG CTA AAAAGGA C TAGGAACC 360  
 TTCAATTTGA GCAGTTGGTT N 381

SEQ ID NO:2352

LENGTH:265

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02714

SEQUENCE DESCRIPTION:

GATCTGCCCC CCTTGGCCTC TCAAAGTGTT GGGATTGCAG GCGTGACACG TGCTCCTGGC 60  
TTGAATTTTC TTATAATCCC ATGAAACCAT CATCAGAGTC ACAATAATNA ATTTATCTAA 120  
TCTATCACCT TTGTATTACAC CTGGAGCCTT TATAAAGTTT TTNTCTATGC AGACAACCAT 180  
TGATTTACTC TGCTGTATAA TACTTTCCAT TTTCTAGAAT TTTCTGACTG ATGTAATAAA 240  
GTGTTTCCTC TTATAATCCC TGAAA 265

SEQ ID NO:2353

LENGTH:265

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02715

SEQUENCE DESCRIPTION:

GATCGGGGGC TTGAACCCAG GTGGTCAGGC TCTGGAGCCC ACAATTGTNT TACCCACTAT 60  
GCCCCTCTCT AGTCATGGTC CCAAGAGGG GCTTGGAGAC CCACTTAGCA GGTGAAAGCA 120  
ATGGCAGCCT TCCTTATTTG ATTATGCACC TAAGAATAAA TGGTATTGG GCATGTATTC 180  
CCAAATATGTG TATATTTATT TATAAATATA TACAGATACT ATNATCTGTA TGTNAGTAAT 240  
AAAGCTTAAA TTATTCCATT TAAA 265

SEQ ID NO:2354

LENGTH:379

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02716

SEQUENCE DESCRIPTION:

GATCGGCGGA CGCCCATCAC CGTGGTGAAG CAAGGCTTTG AGCCTCCCTC CTTTGTGGGC 60  
TGTTTCCTTG GCTGGGATGA TGATTACTGG TCTGTGGACC CCTTGGACAG GGCCATGGCT 120  
GAGCTGGCTG CCTGAGGAGG GGCAGGGCCC ACCCATGTCA CCGGTCAGTG CCTTTGGAA 180  
CTGTCCCTCC CTCAAAGAGG CCTTAGAGCG AGCAGAGCAG CTCTGCTATG AGTGTGTGTG 240  
TGTGTGTGTG TTGTTTCTTT TTTTNTTTN NNNAGTNTCC AAAAAAGCC CTNAAAAAAT 300  
TCAGGGNCCT TGAAAAATTN TNTAAATGC CAGNNTTGG GGAAATNAAA CCCANTAAAA 360  
ACNTTTTGAG GGGTGNAAA 379

SEQ ID NO:2355

LENGTH:261

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02717

SEQUENCE DESCRIPTION:



GATCACAAAA CAATTCTAAA ACCTAACTGT TTTTACCATT GAAATTTAAA TTGTGATAAT 60  
 AGGTTTTTAAA TGTCTAGAAT GCAACTGATA GGCTTTTCTT GAACTGTTAG TTTTGTGAA 120  
 GTAGTTTTTTT CATGTTTANN NNGTATTTGT AAAAAAACA AAAGCAAAAA AATTCCCAAA 180  
 ACCCAGATAA CAACCAGAGC AAAACTGTTG TGCCTTCTAT TTATCTTTGA TTTCAGTCTT 240  
 GGCAATTGTT TAAAAAAA N 261

SEQ ID NO:2356

LENGTH:259

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02718

SEQUENCE DESCRIPTION:

GATCATTGGA GAGAGAATTG CACAGAAAGT CCTGAAGTTT AAAACACTTT ATGACCAGCT 60  
 TTGGCTCGGG AGAGTGGGGC TGCTTGTA GA ACTGGAAGTG AATAACTTTT TCAAGCAATA 120  
 TCAGTGAGTG GGTCCCATCG ACAGGGTTCC AGGACCTGGA ACACTTTAAC AGAAGGAAAT 180  
 GCCGAAGCAG CTTGCACAGT NGCTTGACAG ACTTCCAAGN NGGCTGATTG TGGCTTCAAG 240  
 ATGGAGCCTT GGAGTTGGN 259

SEQ ID NO:2357

LENGTH:296

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02719

SEQUENCE DESCRIPTION:

GATCTGGGAG TACACCAGGC AGCAGCTGCT CTCGNACGGA GATACCAAGC CATGATGTGC 60  
 CNNNNTAGT GAACTGCTGC TGCTGTTCAG ACTTTTTTAA AAAAAACTAT TTGGACTAAA 120  
 GAAACAGATT CTGAAATTTA TTGTGATAAT TTGTATTTCT TTTTCTTGC AATTAAATGC 180  
 CAAAAGTTTG CCATGTGCCT TAAACATATT ACTATATATT TNCCTTTA ATAAACACTT 240  
 TTNGTTAAAT TGTATTCTTC CTTTAATAAA ATATTTTAAG CAATTGTGGA AATAAA 296

SEQ ID NO:2358

LENGTH:254

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02721

SEQUENCE DESCRIPTION:

GATCAGAATA CATGATGGAT GAAATTCCTT ACATGTTTTA GCAGAATNAA TTTGTTTAAT 60  
 ATAATAAAGT TTGCTACTTA TCTGTATGTA GGTGCTAAA AANGATTTTC TTAATCAGA 120  
 TTTTAAGCCA AATAACCATT TAACACTAGT ATTTGTTAAA TGGGTTATTT TNCTGTATTT 180  
 GTATGTTTCA CTATAATAAG GGAATTAAGG ATAATGTGCA TTGAGAATAT TTGAAAANT 240  
 AATTGACTCA AATN 254

SEQ ID NO:2359

LENGTH:253

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02722

SEQUENCE DESCRIPTION:

GATCAGTTAT AAGTAGCAGG CCAAGTCAGG CCCTTATTTT CAAGAACTG AGGAATTTTC 60  
 TTTGTGTAGC TTTGCTCTTT GGTAGAAAAG GCTAGGTACA CAGCTCTAGA CACTGCCACA 120  
 CAGGGTCTGC AAGGTCTTTG GTTCAGCTAA GCTAGGAATG AAATCCTGCT TCAGTGTATG 180  
 GNAATAAATG TATCATAGNA ATGTAACCTT TTGTAAGNCA AAGGTTTTCC TCTTCTATTT 240  
 TGTAACCTCA AAN 253

SEQ ID NO:2360

LENGTH:253

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02723

SEQUENCE DESCRIPTION:

GATCAATCCC AAGAATCCAT CAGCAACCTC AGACCAACCC AAGAAGATAA TTTAAATCTA 60  
 TACTGCTTAT TGGTCAATAT ATTTGTTCT AGTATTAATA AAGAAAAATG TTATTAAAT 120  
 AGCATACATA GTAGTAAAT AAANTACANA AAGTGTGTTG ATTTATAGCT GTTTGAGATG 180  
 ATAAAAGTGN AGCAAAGCCT GTTAAATCAT TGGAAGACTT GGANANTTAT TTTAAATAAN 240  
 CAATTACATG TAN 253

SEQ ID NO:2361

LENGTH:252

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02724

SEQUENCE DESCRIPTION:

GATCTGCATA AACAGGGTTC CTGACCTCAC CGAAAAGACT AATGTGCCTT AGAACAAGCA 60  
 TTTGCTGTGT TTTGTTAGCA CCTGGTTCCA GGACAGACCC TCAGCTTCCC AAGAGGATAC 120  
 TGCTGCCAAG AAGTTGCTCT GAAGTCAGTT TCTATCGTTC TGCTCTTTGA TTCAAAGCAC 180  
 TGTTTCTNTC ACTGGGCCCTC CAACCATGTT CCCTTCTTCT TAGCACCACA AATAATCAAA 240  
 ACCCNACATA AA 252

SEQ ID NO:2362

LENGTH:251

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02725

SEQUENCE DESCRIPTION:

GATCTTCTCA GCCAGGAGAA GAGGGTGGTG TTTTCACGCG GGCAACTGCT CGCCGGCCTA 60  
 CATGGGGTTA ATTCAAGTCT GCTGCGAGCA CGACTCCGCC CTTGGCACTG GCCTCCAGCA 120  
 AGCCCTGTTT TCTTTGGGGT ACAGGGGAAC GGGATGGTTT AGACTTTCCT GCTCAGTGTG 180  
 TAAAAAATGT AGCTAAAGCC ACTATTTTGT CTCTCCTTAA GCTGTTCAAT AAACCGGTTT 240  
 CTCATTTTAA A 251

SEQ ID NO:2363

LENGTH:308

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02727

SEQUENCE DESCRIPTION:

GATCTGGAAC ACTCCCTGA CCCCTTCACA CCTGGCCCTC CCTGGGCTTA AAGCTCCTGA 60  
 TATTCCTCAT CCCCTTCCTT GTTTTCCAGA ATCGGTCGAG GTGGACGGTT TGGCCGTAAA 120  
 GGTGTGGCTA TTAACATGGT GACAGAAGAA GACAAGAGGA CTCTTCGAGA CATTGAGACC 180  
 TTCTACAACA CCTCCATTGA GGAAATGCCC CTCAATGTTG CTGACCTCAT CTGAGGGGCT 240  
 GTNCTGCCAC CNAGCCNCAG NCAGGGCTCA ATCTCTGGGG GGCTGAGGGA GCAGCAGGGA 300  
 GGGGTGGN 308

SEQ ID NO:2364

LENGTH:245

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02728

SEQUENCE DESCRIPTION:

GATCGTAGAT TTTAACAAT CTGTATCTTT AACAAATCTG GGTGCNAGTG TNAGAGTGTG 60  
 AGCAGGGCTT GCTCCTGCCA ACCACAATTC AATGAATCCC CGACCCCCCT ACCCCATGCT 120  
 GTACTTGTGG TTCTCTTTTT GTATTTTGA TCTNACCCCG GGGGGCTGGG ACAGATTGGC 180  
 AATGGGCCGT CCCCTCTCCC CTTGGTTCTG CACTGTTGCC AATAAAAAGC TCTTAAAAAC 240  
 GCAAA 245

SEQ ID NO:2365

LENGTH:249

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02729

SEQUENCE DESCRIPTION:

GATCTAACCA ACTCAACTGA TAGAAAGCTG AATTGTTCCC AGTGGACAAG TGGTATTTGA 60  
 TGTTTAGCAG GTTTTTTGT TGTTATTTT TTGGTAACT CTGTGGTAAA ATCTAAAATA 120  
 ATGTTAAAC CCTAAAAGTA ACTATTGANT ATNCTGTAAT CTTAGACATG TATTTTCAA 180  
 GCTAACCCCTT TGAAGAAATG TGTCAAGGT AGGAAAATAT AAAATTTTTT GGTTATTTGT 240  
 AAATTTAAA 249

SEQ ID NO:2366

LENGTH:240

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02730

SEQUENCE DESCRIPTION:

GATCATGCAT TGTTGAGGTG GTCTGAATGT TCTGACATTA ACAGTTTTCC ATGAAAACGT 60  
 TTTATTGTGT TTTTAATTTA TTTATTAAGA TGGATTCTCA GATATTTATA TTTTAATTTN 120

ATTTTTTCT ACCTTGAGGT CTTTGTGACAT GTGGAAAGTG AATTGAATG AAAAATTAA 180  
GCATTGTTG CTTATTGTTT CAAGACATTG TCAATAAAAG CATTAAAGTT GAATGCGAAA 240

SEQ ID NO:2367

LENGTH:251

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02731

SEQUENCE DESCRIPTION:

GATCTATACT GTGTGGTCAT GAGTTGTGTA TAGTTCATA ACACTGTATT TTNCTNCTGT 60  
CAGTACCCTT AGGATACACT NTAAACACC TTAAGGTCTG ATGTTATGGC AACAACTAC 120  
TTNTCAAAC CTAAATAGGA ACCATGTAAT TNCTCAAAAG TGATTGAACA GTTGCCAC 180  
ACTTAGTTT TTGGTCTTAT GTAAACATT GGCTCAAAAT AAAGNNCACA CTGATTATT 240  
TNACTGNNA A 251

SEQ ID NO:2368

LENGTH:239

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02732

SEQUENCE DESCRIPTION:

GATCTGAAAA TTTATTTTAC CCAGCTTTCA CAATTAAGTC TGTATAAAAT GTGGTACCTT 60  
TTNGTACCTA TCCAGAGAAA CCTGTACATA TTCAATGTTA TCTAGATGTG ATTGGATAAT 120  
GGAGAAAATN TATTTATAAT GATTTTNCAA TGGCATCAAT AACATTTAAA TGATTTTGAA 180  
GAAGTATTAT TTTACTACCC TATAAATGA ATCGAAAATA ATAAAGTTCT TAACATAAA 239

SEQ ID NO:2369

LENGTH:239

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02733

SEQUENCE DESCRIPTION:

GATCAAATTA TCTTCAGCAT GTATATCTGG GGAAAAAGG TCCGAATTTT CACATTTATA 60  
TTTAAANTTC AATTTTTTAT ATTTAAANTT CAATTTTTTA GCAACAGCTG AATAGCTTTG 120  
CGGAGGAGTT TAATAGTTAC ACATTCATGC TAATATACAT TNCCTTTAAA CATCCACAAA 180  
TTCTTAAAAA GATTGAATCA GTANATTTCA TTTCAGCTAA AAATGGAGTC TAATATATN 239

SEQ ID NO:2370

LENGTH:237

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02734

SEQUENCE DESCRIPTION:

GATCCACCCG CCTTGGCCTC CCAGAGTGCT GTGATTACAG CTGTGAGCCT CCGTGCCACG 60  
GCCAGTGTTT TCTCTTAAAT GTGTTTCAAT ATGGTGGACA TTTATTGAGC ACTTGTTGTTG 120

GGCGTTTCAA CAGGAGGCAC TGGTACGAAA AGTAGCTTGT TCTAGTTCAT ATATCATTG 180  
CACTTTGCTT AACTTGTATA AGTACTTTTT ACTGTTAAT AAATATTTTA TTAGAAA 237

SEQ ID NO:2371

LENGTH:236

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02735

SEQUENCE DESCRIPTION:

GATCAAAAAGA GCAAACAATA CTTTCTATGG CTTATCAGCA GGAGTGTTTA CCAAAGACAT 60  
TGATAAANCC ATAACAATCT CCTCTGCTCT GCAGGCAGGA ACANTNTGGG NGAATTGCTA 120  
TGGCGTGTA AGTNCCCAGT GCCCCTTTGG TGGATTCAAG ATGTCTGGAA ATGGNAGAGA 180  
ACTGGGAGAG TACGGTTTCC ATGAATATAC AGNGGTCAAA ACAGTCACAG TGAAAN 236

SEQ ID NO:2372

LENGTH:236

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02736

SEQUENCE DESCRIPTION:

GATCCNATTC CCGTTGCCTC AAAGCACCAG CTCTCTCGCT CCATCCTCCC AAGAGCCTCC 60  
AAGGCGCCAT TGGCTTCTCG GGACTCTGAG TCTGCCGGCC TCTTTTCTCG ACTCCAGTTT 120  
CTTCTGGCTT GAGCCAATGG GGCATGTTCT GTGACTGCAT TTGCATCTCG GATTGTGTTT 180  
TTAAACCCAT TTTCTCCCAT ATTTGCCTGA AAAATATATA GAAACTGATA TACAAA 236

SEQ ID NO:2373

LENGTH:245

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02737

SEQUENCE DESCRIPTION:

GATCAGGCTG GTACAGGATG CCTTAAGGTG ATGAGAGGTG AGGGTGCATG AAGAATAATG 60  
AGCACAGGGA AGAGAGAAGC AGGACAAAGT AGCAGATAAA ATGCCGGCAA AGCACAGATG 120  
ANTGTTTTCA AGAAGCTCTT GTATTNTNT GCACAGTGTA AATATCCTTG CTATTTTCAGG 180  
ATGGCGGCTG GCCTGCTCAG TAACATACAT GTTCCAAATA AAGATTTTGC ATGAAAGTAC 240  
CTAAA 245

SEQ ID NO:2374

LENGTH:231

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02738

SEQUENCE DESCRIPTION:

GATCTGACTG CCTCCTTTCT CTGGCCTCTN CCCCCTNCCC TCTTCTCTTC AGCTAGGCTA 60  
GCTGGTTTGG AGTAGAATGG CAACTAATTC TAATTTTAAT TTATTAAATA TTTGGGGTTT 120

TGGTTTTAAA GCCAGAATTA CGGCTAGCAC CTAGCATTTC AGCAGAGGGA CCATTTTAGA 180  
 CCAAAATGTA CTGTTAATGG GTTTTTTTTT AAAATTAAAN GATTAAATAA A 231

SEQ ID NO:2375

LENGTH:236

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02739

SEQUENCE DESCRIPTION:

GATCCACTGT GAGCACCAAC CTGCTGCAGT CTCTTGGGCC CCTGCTGGCA GCTCTGCCAC 60  
 GTCACCGNCT GCCTGGCTCC CACACAGCCA TGCATTGTCA CTCTGCCTCC GGGACCCNAG 120  
 CTNGGAGCN NNTGGGTCTG CCAGGTCCCA CCTCCTCTGT CCCCNATGCC ACAACCTGGG 180  
 CTCCTGGCTA CAGCAGGGNT CCAGGGACTN CAAATAAATG TTCAGTGACT GGCAAA 236

SEQ ID NO:2376

LENGTH:235

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02740

SEQUENCE DESCRIPTION:

GATCGGTACAC ACAAGCTGTT CCACGATAAT TTTGTNTCA NAAGGGGAGN CTGACTACCA 60  
 GGACCACTGG CCCCACTTCC AGCCCTCCA TTCTNAGTAC ACTCAGAGG GCTCTGGCAG 120  
 GGTGAGGGGG TCTTGNCCTG GCCACAGAGA GTAAAGGTCT AGCACACCCA TTGTGGAGAT 180  
 ATTCATGGG GACANCCAG TGACTTCACT TTGAAGTAAA GTGGGATTTT CCAA 235

SEQ ID NO:2377

LENGTH:253

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02741

SEQUENCE DESCRIPTION:

GATCGNAGGC TACCCTGGCT CAGTNACCAG CTGCTCACTG TGTCTTCTG TGGTCTCAGG 60  
 AGCTGCAGTT GTTGCTGTTG TATGAATAGA CGATAGTNAA TTAGACTGGA TGTGTCTGTA 120  
 CTGGCAGTNA TTTTCCAAC TNCCTCTGTAT AAGCAATACA TTTGTAAATC ATGGGAATGT 180  
 ATTTAATGGT AATTGCCTGT GGTGGTTGTA TCATGATTTA NTNNTATNAT GAGCTTTTGG 240  
 CTTTNTNTAT NTN 253

SEQ ID NO:2378

LENGTH:232

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02742

SEQUENCE DESCRIPTION:

GATCTGGGGT CCCAGTGTCA TTGGTGAAGG CCTTGGGATT CGAGGCAGCT GAGTCCTCAC 60  
 TGACCAAGGA TGCCCTTGTG CTTACTCCAG CCTCCTTGTG GAAACCCAGC TCTCCTGTCT 120

CCCAGTGAAG ACTTGGATGG CAGCCATCAG GGAAGGCTGG GTCCCAGCTG GGAGTATGGG 180  
TGTGAGCTCT ATAGACCATC CCTCTCTGCA ATCAATAAAC ACTTGCCTGA AA 232

SEQ ID NO:2379

LENGTH:232

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02743

SEQUENCE DESCRIPTION:

GATCTCTGAA AAGNAGGTTT CAGCCACGAG GCAGCTGNTC CCAGGACACT GAGGCCAAGA 60  
GAAATGTAAC AGAGCCACAG CTCCACAGGC CTGCACTCGG AGTCTGGGGC CTCTGCAGAG 120  
CCAGCAAGGG GAAAAGTATA ATCTGGGGGA CCTTCAACCA CTAAGCCTCT TGTCAAGGCC 180  
CTCAGGCAGG CAGATGTGTC ACCCAAATAA ACAGTGATAT TGTCTCCAGA AA 232

SEQ ID NO:2380

LENGTH:232

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02744

SEQUENCE DESCRIPTION:

GATCTNAGCT GGACAGAGGA GGAGGAAGAG GAGGAAGCAA TGGGGGAATA GTGACACCAG 60  
ACAGTTGATG TCTAGATAGG ACCTCAATNA TTCCNTTAGA ATCTNAGATA CCAGGATATT 120  
GTTGGCCATG TGGCATCATT GAGCAGCAGG AGGCTGAAGG AGGNGAGAAC AAAATTGTCC 180  
AAACCATGCT GTTTTTTCC CTAAATAAA TCTTGATTTC TTCAGTTTCA AA 232

SEQ ID NO:2381

LENGTH:236

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02745

SEQUENCE DESCRIPTION:

GATCTANGGA ACCAAACGGA AGGTTTTGAG GTGATGTAGG TCTTTCACAG TTAGCTTTGG 60  
GGAATACAGA ATACTCAAAT AAAGTGCTTT GTTATTATTT CAGAGGGAAT GCGGATTGAA 120  
ATGTTACAAC AGAGATTCTT TGGTGGTAGC TATTNNGTA AAGGGTATAT GGNTATTTT 180  
CTGTACATGT GAAATTATAT AGANNTAAAA GTTATATANA TTACATTGGC CAGAAA 236

SEQ ID NO:2382

LENGTH:229

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02746

SEQUENCE DESCRIPTION:

GATCAAGTTT AAGTCAGTCA GTTAAGGGGA GGAGAAGGAG AGGTTATACN TTCAGGGGGC 60  
TACCAGACAG TGTCTCAAC TTGGTTAAGG AGGAAGAAAA CCCAGTCAAT GAAATTCAAT 120  
GAAATTCTTG GAACTTCCA TTAAGTGTGT AGATTGAGCA GGTAGTAATT GCATGCAGTT 180

TGTACATTAG TGCATTAAAA GATGAATTAT TGAGTNCTTA AAGATTAAA

229

SEQ ID NO:2383

LENGTH:227

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02747

SEQUENCE DESCRIPTION:

GATCTGATTT CAGATTTTTC CTGTATCTTT TTTACATACA TCAGAAAAAG AAATGTTTAC 60  
TATATTTTGG GTTCCATTNA TGATTGTTTT AAGCATTGTA CGNATAAGGA AACTAACAA 120  
TTAANTCAAT TAGAAAAGCA ACATAAAATT AANTGATATT TAGGAAATCA GTTATATGTG 180  
AGCTTGGGTA TTCAAATGTC ACAANTAAAA GGCNTANACC CATNAAA 227

SEQ ID NO:2384

LENGTH:223

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02749

SEQUENCE DESCRIPTION:

GATCAAAATNA CCTGTGAAGG AATATTTTGC CTTTCATCCTA GCTGCTGGGG AAGCGGGGAG 60  
AGGGGTCAGG NAGGCTAATG GTTGCTTTCC TGAATGTTTC TGGGGTACCA ATACGAGTNC 120  
CCATAGGGNC TGCTCCCTCA AAAAGGGAGG GGACAGATGG GNAGCTTTN TNACCTATTC 180  
AAGGAATACG TGCCTTTTCC TTAAANNCTT TCATTGATTG AAA 223

SEQ ID NO:2385

LENGTH:221

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02750

SEQUENCE DESCRIPTION:

GATCAGGGTT TNGGGTCTGT GTTCTTTCTA CCGTCAGCAC CTGTGTGGTC AATTCTGGAC 60  
ACTTCCCAGA GAAGTCTTTG AGTAGAGAAT CCTACTCAA TTTCACTGTA TATNTTAAGC 120  
ATTCTCTCC TNTCCNTTG CCTNCCCTGT TGCCTTNTCT TCCCCTGATT TCTCCTCTGG 180  
TCATCTNCTC TCCCTNCTGC GTGTAAGCCA TGGGAAAGGG N 221

SEQ ID NO:2386

LENGTH:220

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02751

SEQUENCE DESCRIPTION:

GATCATGAAA ACAATGTAGG TAAAGTAAAG TATGTATTTG TCTGTGCTTG AAAAATATTG 60  
TAAAATGTTA TGTATTTGGA ATATATTTTG TGGTTTGTCT AATATTTATA AACACAACCTC 120  
GGGGTGAATT CACANTGAGT TTATTTCAAT GAAATACTAG AGATATGGGG GCCATGTTAC 180  
TGTGCTTGGN GCCTTACCNT TTGTATAGTG AAATTTGCAN 220



SEQ ID NO:2387

LENGTH:220

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02752

SEQUENCE DESCRIPTION:

GATCCGCCTG CCTGGCCTC CCGAAGTGCT GGAATTACAG GCATGAGCCA CTGCTCCTGG 60  
 CCTAAGATGT TTTTAAATA ATGTTTTTAA CTAAATTTTA AGAATGTTTT TAACTAAAGT 120  
 TATTTATATT TGGAATAATT CGTTAATGAT TTGTGTCATT TCCCCAACCC CTTTTTAAAT 180  
 TTGTGAATTT GAGGACTGGA TAAAAGATA AAAAGTTAAA 220

SEQ ID NO:2388

LENGTH:339

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02753

SEQUENCE DESCRIPTION:

GATCTAATTA ATAGCTGACC TCCCAAATCT GACAGGATAG ACACTGCCAC GTGCAAGGCC 60  
 TGCCAGCCCC TCAGACGCAC AAAATGCGTA AAACAAATGC ATCCTTTCCT GGCTAAGCGA 120  
 GTATTACTCT CTTAGCCCTG CACCAAACCT CCAATCTAGC CACATTTAAC TTTTCATTTC 180  
 TTAGACCCGC AGAGTGTCTT CCTGCCTCTG AGCTGTGAGT GTTGTTCCT TTGCCCCGGA 240  
 TGCTCTTGTT TTTAATACCA GTTCAAGTCC CACTCTCTCA GTGAAGCACT CCCTTCCCCA 300  
 CTNATAGCCT TTAGTGAACC CTCGTTTCTT GCTTCTTN 339

SEQ ID NO:2389

LENGTH:219

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02754

SEQUENCE DESCRIPTION:

GATCCATGTG CAGTAATGCC TGGTGGCTCC AGGTCTGCCC CGCCGTCCTG TGGGGCTGTG 60  
 AGCTTTCCCA GCCTCCTGCC CGTGTGTTG AATATCATTC TGCTCTCAGC TGCAATTTCCA 120  
 GCCCAGGCTG TTTGGCGCTG CCCAGGAATG GTATNAATTC CCCTGTTTCT CTTGTAGCCA 180  
 GTTACTAGAA TAAATCATC TACTTTAAAA TCTTTCAA 219

SEQ ID NO:2390

LENGTH:219

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02755

SEQUENCE DESCRIPTION:

GATCTTGACC GGGAAAAGGG ACTTGAGAGA ACCTTCTAGG ATAATTTNAT TTCTTGATTA 60  
 GGTGGTGGTT ACATTTGTAA AAATCATCGA CCTCTAAATT TAGGGTTTGT GCCCTTCACA 120  
 TACCTTGTG TATGCATTTT GCCACTTGTT TTTTCAAAGC AATGAAAAAG TATCACTGCA 180

ATTAGGTTTT AAATAAATTT GTTTCGTAA CATGTCAAA

219

SEQ ID NO:2391

LENGTH:218

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02756

SEQUENCE DESCRIPTION:

GATCTGGAAT CGGGGTCAGC GGGGCTACAG TCCTTCCAGG GGCTNTGGGG CAGCTCCCAG 60  
 CCTCTTCCCA TGCTGGTGGC CACCGTGTCC CTTGCTGCGG CTGCATCTTC CAGTCTCTCC 120  
 TCCGTCTTCC AGTGGCCGCT CTCTTTATAA GAACCCTGGT CATTGAATTT AAGGCCACC 180  
 CCAAGTCCAG AATGACCTCG CAAGACCCTT AACTCAAA 218

SEQ ID NO:2392

LENGTH:217

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02758

SEQUENCE DESCRIPTION:

GATCCATTTT TAATGGTTCA TTTCCTTTAT GGTCAATATA CTGCACAGCT GAAGATGAAA 60  
 GGGGAAAATA AATGAAAATT TTACTTTTCG ATGCCAATGA TACATTGCAC TAACTGATG 120  
 GAAGAAGTTA TCCAAAGTAC TGTATAACAT CTTGTTTATT ATTTAATGTT TTCTAAAATA 180  
 AAAAATGTTA GTGGTTTTCC AAATGGCCTA ATAAAAAN 217

SEQ ID NO:2393

LENGTH:216

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02760

SEQUENCE DESCRIPTION:

GATCAGAGGA ACTTTNAGGT GTCTGCCGGC TAACATTGTG TCATTCCTGG AGTCCACAGT 60  
 ACACGTCCCC TGCCTCAACA GGCACAGCTC TCACAAAGCT CTTCAAGCAT GGAAGTGGGA 120  
 GTTGTGTTGT ACTTCATGGC ACTCTGATGC CTGCTGTCTC AGTGTTTGGT TATTATGCAA 180  
 ACAAGTAATG TTTGAAATAT ATAATAGCAC TGGAAA 216

SEQ ID NO:2394

LENGTH:215

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02761

SEQUENCE DESCRIPTION:

GATCCATTTT TACCTGCATT TCCCAGAGGA CTAGCAGGAG GCAGCCTTGA GAAACCGGCA 60  
 GTTCCCAAGC CAGCGCCTGG CTGTTCTCTC ATTGTCACTG CCCTCTCCCC AACCTCTCCT 120  
 CTAACCCACT AGAGATTGCC TGTGNCCTGC CTCTTGCCCTC TTGTAGAATG CAGCTCTGGC 180  
 CCTCAATAAA TACTTCCTGC ATTCNNCTGN NNAAN 215

SEQ ID NO:2395

LENGTH:214

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02762

SEQUENCE DESCRIPTION:

GATCTAAATG TAAAGCAAA TGAAAAATGC ATGTNTTTT NCCTGTCAA CATGTATACC 60  
CTTATGTATA GAGACCAGTA GTCACGTATG GTGACTGAAA CAGGATTATG TAATCCCTAA 120  
AAAGCAGAAT ATGTAAAANT CACATGTATG CGTTTGGTTT AGGAATGTNC TTTTGTACTT 180  
CCACTTGAAT AAAGGTGTGT TTGGTATTCT GAAA 214

SEQ ID NO:2396

LENGTH:212

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02764

SEQUENCE DESCRIPTION:

GATCCAGAAA TTCAAACCTC GAGAGCAGAT GGAACGACAT CTAAATCTNT GAATAAAGCA 60  
GCAGGCTGT CCTGGCCGGT TGGCTTGACT CTCTCCTGTC AGAATGCAAC CTGGCTTTAT 120  
GCACCTAGAT GTCCCCAGCA CCCAGTTCTG AGCCAGGCAC ATCAAATGTC AAGGAATTGA 180  
CTGAACGAAC TAAGAGCTCC TGGATGGGTC CN 212

SEQ ID NO:2397

LENGTH:212

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02765

SEQUENCE DESCRIPTION:

GATCTATTAA AGTGCAACT TTGCATTATA GAACTGAACA TGAAGTAAAT TGAGTGTTC 60  
TGAGTTNCT ATAGAAAATT TATGCTACCT CTCATCTTTT CACATACAAA TAAGCAACTT 120  
TTAATGAAGG CTTAGGGTGN AAATTTTAAT TTTAGCACTT TACATTACAT GATGAATGGT 180  
GAATATTAAA GGACTTTGAA CATTTTAATA AA 212

SEQ ID NO:2398

LENGTH:213

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02767

SEQUENCE DESCRIPTION:

GATCGAGAAG CTGCTCAATT ATGCACCCCT GGAGAAGTGA CCACGCTGAA ACCCACCAC 60  
CCGCTGTGCT GACCATGGGC CCTGAGCGTC CTACCCCGAA TTCACGAGGC TGAGGCATCC 120  
GGGAGCTGGC GTAATGCCTG GCCGAGTGT GTGTGTATCC CATACCCAC TCTGGAAGGA 180  
ACCATCCAGT AAAGGTCTTT CAGAACCACT AAA 213

SEQ ID NO:2399

LENGTH:211

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02768

SEQUENCE DESCRIPTION:

GATCAGAGAT GCACCACCAA GCCAAGGGAA CCTGTGTCCG GTATTCGATA CTGCGACTTT 60  
CTGCCTGGAG TGTATGACTG CACATGACTC GGGGGTGGG AAAGGGGTCG GCTGACCATG 120  
CTCATCTGCT GGTCCGTGGG ACGGTGCCCA AAGCCAGAGG CTGGGTTCAT TTGTGTAACG 180  
ACAATAAACG GTACTTGTCA TTTCGGGCAA A 211

SEQ ID NO:2400

LENGTH:211

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02769

SEQUENCE DESCRIPTION:

GATCAGACAC CCCTTCACGT GTATCCCCAC ACAAATGCAA GCTCACCAAG GTCCCCCTCTC 60  
AGTCCCCCTC CCTACACCCT GACCTGGCCA CTGCCGNACA CCCACCCAGA GCACGCCACC 120  
CGCCATGGGA GTGTGCTCAG GAGTCGCGGG CAGCGTGGAC ATCTGTCCCA GAGGGGGCAG 180  
AATCTCCAAT AGAGGACTGA GNACTGCTAA A 211

SEQ ID NO:2401

LENGTH:206

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02770

SEQUENCE DESCRIPTION:

GATCACCTAC TTACTGTATT CTACATTATT ATATGNCATA GTATAATGAG ACAATATCAA 60  
AAGTAAACAT GTAATGACAA TACATACTAA CATTCTTGTA GGAGTGGTA GAGAAGCTGA 120  
TGCCTNGNTT CTACATTCTG TCATTAGCTA TTATCNTCTA ACGGTTCACT GTATCCTTAC 180  
AGGAATAAAA GCAGCATNTG GNTAAA 206

SEQ ID NO:2402

LENGTH:205

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02771

SEQUENCE DESCRIPTION:

GATCGAATGA AGGATTCAAA ATTAACCACT CCAAGGGGGG ATTGAAGGAA GAACCACTCT 60  
TAATGGACAA AAAGAAAGAA AGGGGAGGGA GTAACAGGGA TATNAGCTCT AGCCGCCCAA 120  
GCTAGCAATG GCAACCCTTC TGGGTCCCTT TCCAGCATGT GGAAGCTTTC CTTTCGCTTC 180  
ATTCAATAAA CAGCTGCTGC TCAAA 205

SEQ ID NO:2403

LENGTH:228

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02772

SEQUENCE DESCRIPTION:

GATCTATAGA CATNAGGAAG GGAGTNAGAC GGCTCCTCCA CCATCCTCAG CCAGTGCAAC 60  
CCATTCCCTC TNCTTCTCTC TCTCTCTCTC TCTCTCCCTC CCTCTCCTTC CCTACCTCT 120  
CACCATCTTT NTGGCCTCT CTNAGGGTCT CTCTGTGCAT CTNTTAGGA ATCTNGCTCT 180  
CACTCTCTAC GTAGCCACTC TCCTTCCCN ATTTNTGNGT CCACCCNN 228

SEQ ID NO:2404

LENGTH:273

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02773

SEQUENCE DESCRIPTION:

GATCTAGCTA GGGCTTTGTC TTTTCATCTT TGTGCATAAC TTACCTGTTA CCAGTATAGG 60  
TGGGATATAC ATNTATCTTG CAGGAAATTC CCCAAAGCTC AGAGTCCAGT TCCTTCCATA 120  
AAACAGGCTG GACAAATGAC CACTATGTTA GACCCCCCGG NTCGACTTCA GGGGTCAGTG 180  
TTCTGTCCC AAACCCNCAC ACAGAATNCT CTGNCTGNGG TTCATGTNGA AACTGAGCAA 240  
AAACTANAGT ATCTNTCAAN ANGTGTAACN TGN 273

SEQ ID NO:2405

LENGTH:203

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02774

SEQUENCE DESCRIPTION:

GATCCACCTC ATATGTGAGT CCGTCCAAAA GATGTTACTG CTCTGGGTGG GCCAGTGTTT 60  
TATATCGGTT ATACTAATT TCATTAAAG TATTTATTCT AAAATGCCTC TGAGAAACAG 120  
TAAAAAATAA AAACAACAAG TTGTCTAAAA TGCAACAGCT TTTATAGTAA ATGTACATT 180  
ATAAATAAAA TACTCAAATC AAA 203

SEQ ID NO:2406

LENGTH:203

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02775

SEQUENCE DESCRIPTION:

GATCTCTGAT GGATTGTG ACTCCTCTGT GGGAGAAAGG CTTGGTCTAC TGCAGGTGTT 60  
AACGCTAAGC CAGGCTGGAG CTGCGGACGT NAGTTTCCTC AGCNCCTCCG TGTCGCTTC 120  
GAACGTNACC TCGACGTCTG CTCTCCCTT CCCTTTAGCT GACAAATGTA CAGTNCTTGA 180  
ATAAAAGTNA GTCTGACAGG AAA 203

SEQ ID NO:2407

LENGTH:205

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02776

SEQUENCE DESCRIPTION:

GATCTGAATG TGAATTTCTA ATTGTATCAG ACGTTAATGT TTAAAGCTA TAACAAAGTT 60  
TAAAATTCT ACTTTTGTT TTNATTTAT TTAACTGTT CTTTATCTA TTAAATTGTT 120  
GTATGTGGAT GGGGAAGTTT TGTTTCTCCT CTTAGCATTT GTTCTATAA CCAGAAATAA 180  
AATTCTATAT TAAAGAAATG ACAA 205

SEQ ID NO:2408

LENGTH:201

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02777

SEQUENCE DESCRIPTION:

GATCCCAATC TGAGAAAAGG CAAAAGAATG GCTACTTTTT TCTATGCTGG NGTATTTTCT 60  
AATAATCCTG CTTGACCTT ATCTGACCTC TTGGAACT ATAACATAGC TGTCACAGTA 120  
TAGTCACAAAT CCACAAATGA TGCAGGTGCA AATGGTTTAT AGCCCTGTGA AGTTCTTAAA 180  
GTTTAGAGGC TAACCTACAG N 201

SEQ ID NO:2409

LENGTH:200

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02778

SEQUENCE DESCRIPTION:

GATCTTTAAC TGCCTGCTGA TAAGATATTG GGCCAACTGA AAATAGAAAT TGTCTTTTCT 60  
TAGAAATATT TTAATGCTAA CTTGTTAGTT TTCCTCAGAA AGCTAGTATT TGAAGCCATT 120  
CGAGTTTAAG ATNCTCTAAT TTCAATAAAA TAGCTTCCAA ATATTTAAAA TGTAATAAAA 180  
TATATGTTG ACACCTTAAA 200

SEQ ID NO:2410

LENGTH:198

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02779

SEQUENCE DESCRIPTION:

GATCAAAACG CTCCATCTTT TTACAGTGGC ATAGGAAGAC GGCAAAAATT TCCTAAAGTG 60  
CAATAGATTT TCAAGTGTAT TGTGCCTTGT TCTAAAATT TTATTAAGTA GGTGCACTG 120  
ACAGTATTGA GGTCAANNNN TATGGTGCTA TTTCANTNAG TCTAGGTTTA GGCCCTTGTA 180  
CATNTTGCCC ATAACNN 198

SEQ ID NO:2411

LENGTH:198

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02780

SEQUENCE DESCRIPTION:

GATCTGCCCA TTGCTGAAAC TTCAGTACTT AAGTCCCCTA TTATNATTGT ATGGCAATCT 60  
 ATCTGTCCAC TCAGAAGTTA TTATATTTGT TTTATATGAT TGAGCACTTC TGTTTGGGT 120  
 ATATATGTAT TTACAATNAC TATAACCTCT TGCTGAATTA ACCCCTNTTA CCATTATGTA 180  
 ATAAACTTAT TTCCCAA 198

SEQ ID NO:2412

LENGTH:198

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02781

SEQUENCE DESCRIPTION:

GATCTTGAAT CACTTGACAG TGTTTGTTNG AATTGTGTTN GTTTTNCCT TTGATGGGCT 60  
 TAAAAGAAAT NATCCAAAGG GAGAAAGAGC AGTATGCCAC TTCTTAAAC AGAACAAAAC 120  
 AAAAAAGAA AATTGGGCTC TTTCTAATC CAAAGGGTAT ATTTNCAGCA TGCTTGACTT 180  
 TACCAATNCT GATGACAN 198

SEQ ID NO:2413

LENGTH:359

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02782

SEQUENCE DESCRIPTION:

GATCCAAAGT AACTAAACAG GAGCCCACAA GACGGTCTGC CAGATTGTCA GCGAAACCTG 60  
 CTCCACCAAA ACCTGAACCC AAACCAAGAA AAACATCTGC TAAGAAAGAA CCTGGAGCAA 120  
 AGATTAGCAG AGGTGCTAAA GGGAAGAAGG AGGAAAAGCA GGAAGCTGGA AAGGANGGCA 180  
 CAGAAAAC TG NTTCTGTAGA TAACGTGGGA GAATGANTTG TCATGAAAAT TTGGTGGTTG 240  
 ATTTTTTTGT NTGCTTTGGG ACAACTTTTA AANGCTATTT TTNCANGTN TTTTNGTNN 300  
 TTGGTTTTTT TTTAGGGNT CTNCTTGTG GCATNCGGNA GTTTTTTANG GTTTGGNCN 359

SEQ ID NO:2414

LENGTH:198

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02783

SEQUENCE DESCRIPTION:

GATCCCAGGG GTGCACATGG GCCCCTTGGG TGTCTGAACA GAAGGGCATG GNAGGAAGGG 60  
 CTGCACCCCT GCAGTCTTAC TCTGCTGGTG TAGCGGGCAG CTGCCCACTC CCACCCACC 120  
 CTGCACCGCG GGCTCCTNAG TCGGCAGATT AAGCATTTNA TAAATTGTAT TTTAAATACA 180  
 TGTTTTAAAC TTGTCAA 198

SEQ ID NO:2415

## DEMANDES OU BREVETS VOLUMINEUX

LA PRÉSENTE PARTIE DE CETTE DEMANDE OU CE BREVET  
COMPREND PLUS D'UN TOME.

CECI EST LE TOME \_\_\_\_\_ DE \_\_\_\_\_

NOTE: Pour les tomes additionels, veuillez contacter le Bureau canadien des brevets

2153480

## JUMBO APPLICATIONS/PATENTS

THIS SECTION OF THE APPLICATION/PATENT CONTAINS MORE  
THAN ONE VOLUME

THIS IS VOLUME 3 OF 8

NOTE: For additional volumes please contact the Canadian Patent Office



## DEMANDES OU BREVETS VOLUMINEUX

LA PRÉSENTE PARTIE DE CETTE DEMANDE OU CE BREVET  
COMPREND PLUS D'UN TOME.

CECI EST LE TOME \_\_\_\_\_ DE \_\_\_\_\_

NOTE: Pour les tomes additionels, veuillez contacter le Bureau canadien des brevets

2153480

## JUMBO APPLICATIONS/PATENTS

THIS SECTION OF THE APPLICATION/PATENT CONTAINS MORE  
THAN ONE VOLUME

THIS IS VOLUME 4 OF 8

NOTE: For additional volumes please contact the Canadian Patent Office

LENGTH:167

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02785

SEQUENCE DESCRIPTION:

GATCCCATCC ATCAGCTCCC TTTCTTTTT CCCTTGAAGT GTTCTGGCCT CAGACCAACT 60  
CTCTCCNNNN NTAATCTCTC TCCTGTATAA CCCACCTTG CCAAGCTTTC TTCTACAACC 120  
AGAGCCCCC ACAATGATGA TTAAACACCT GACACATCTT GCANAAA 167

SEQ ID NO:2416

LENGTH:196

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02786

SEQUENCE DESCRIPTION:

GATCTGTGAT TGGNTGGTTA ATGGGAAACG GTTTTTNCT TTGGCTGCAG GTGTTCTGCT 60  
GATATCAACA GCTTCCCTAT TTTNAATGCA GAAACAGGG TCTGGGACAT TAGTCGTTAT 120  
ATTTNACTTG AAAAGAAAGA AACCAAGTGC GCTTTGCAAT ATTTATTACA CAAAGAACTT 180  
GCTGCTGCAT TCTAAA 196

SEQ ID NO:2417

LENGTH:194

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02787

SEQUENCE DESCRIPTION:

GATCACAGAT TTCCCTGCCA GGGTGTCTGT GGTATCAGC TGCAGGCTCA GCTNGGGTCG 60  
GCCGNTTCAC ACAAGCCACT CTGTACCAG TGCCCTACCT TAGTGACGGG AGTAAGGAGC 120  
TTCCTTCCCC TCCATGTCAT TCCTNCCTGT TCCNTNCATT CCCCACAGC AAATAAACT 180  
GTTGAATGCT CAAA 194

SEQ ID NO:2418

LENGTH:193

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02788

SEQUENCE DESCRIPTION:

GATCTTCCTA CGCACAACAC AAACGTCAGT TAATGTTCCA TCCATGCTGC TTAAAGAGCA 60  
TTCCTGTCCT AGTAAATGG GCAAGTCCCT CTACCCCCA CCTCACCTG GTATGCTTAC 120  
ATTAATAGCT AAAGTCAATC CTGTAATGAA ATAAAGCAAG TGGTAGCTGT CTGGTAGCCT 180  
CCACTACTGC AAA 193

SEQ ID NO:2419

LENGTH:193

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02789

SEQUENCE DESCRIPTION:

GATCAAAACC CAGCAGAGTG CAAGCAGCAG TGAAGCAGGA TGTATGTGGA CTTGAGGATA 60  
ACCTGCACTG GTCTACCTTC TGCTTCCTG GAAAGGATGA ATTTACATCA TTTGACAAGC 120  
CTATTTTCAA GTTATTTGTT GTTGTTTGC TTGTTTTNT TTTTGAGCT AAAATAAAAA 180  
TTTCAAATAC AAA 193

SEQ ID NO:2420

LENGTH:192

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02790

SEQUENCE DESCRIPTION:

GATCAGACCT CAATAATTTT ATACTGTAAT AAGCTCTTTG AATGNTATA TTATTATTTT 60  
TNACAATCAT TTCATTTTGT ATTTAATATC AATGGACTGA GTCTGATTCA GAAAATAATT 120  
GTAATGTTCA TATTCAATAT CTTACAGTGA TACAGTTTGG TATTACATA TAAATATACC 180  
GACATGACCA AA 192

SEQ ID NO:2421

LENGTH:276

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02791

SEQUENCE DESCRIPTION:

GATCAGGGTT TCAAGAATGA CTGCAGTGGG TTTTGAAAC AGACTTATCA TTATTGATT 60  
GAGGTTTCCC AGAGATATAG TTCACAGTTA ATTGTGCGC TCTAATACAA CTGACCATT 120  
AAAAATTGAAC AAGTTTATTG TTTTGTAACA ATGTCAGTTG TTAAACCTTG NCATTTCAT 180  
TAAAACATGA NTTGTAGTTA TAACTCANTG CAANTNCAAC AGTTGTATT GNGTTAANT 240  
TATTTTCACA CGTNCTTTN TTTCATGGAN NNCCCN 276

SEQ ID NO:2422

LENGTH:191

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02792

SEQUENCE DESCRIPTION:

GATCTTTTAT TTTCTCATTA TTTATAACTT CAGACTTGGG CCCCTGTTC TTTCTTCCC 60  
ATTAAGTTGA GTGACCTGTG TGAGAGACAG ACAGATGCCC CACGAGGATG GCTGGACAAG 120  
GACTTTTACT TTTTATTACA TAAAAATATT AAAAAATAAA TAAAAAAAAT AAAATTTTAA 180  
ACTAACTTAA A 191

SEQ ID NO:2423

LENGTH:189

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02793

SEQUENCE DESCRIPTION:

GATCGGAATG CGGGGTCGAG AGCTGATGGG CGGCATTGGG AAAACCATGA TGCAGAGTGG 60  
CGGCACCTTT GGCACATTCA TGGCCATTGG GATGGGCATC CGATGCTAAC CATGGTTGCC 120  
AACTACATCT GTCCTNCCC ATCAATCCCA GCCCATGTAC TAATAAAGA AAGTCTTTGA 180  
GTAGTCAAA 189

SEQ ID NO:2424

LENGTH:187

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02794

SEQUENCE DESCRIPTION:

GATCGAGACC ATCCTGGCTA AAACGCCTGG AATGCAGTGG CACAATCACT GCTCACTGCA 60  
GCCTTGACCG TNTGGACTCA AGTAATTCTC CTAATTCAAC CTCCCAAGTA GCTGGGACTA 120  
CAGTCATGCA CCATCATGCC TATAAAGATA ATTTAATTTA TAATAAATNA TTTATACAAA 180  
CAATAAA 187

SEQ ID NO:2425

LENGTH:187

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02795

SEQUENCE DESCRIPTION:

GATCAATCGT GCATCCTNAG TGAACCTCTG TTGTCCTCAA GCATGGTCTN NNTACTTG TG 60  
AACTATGGTG TTCAGTTTGG CCTCTGTTAG AAATTCACAC TGTGTGTTGA ATNATGTGGA 120  
ACTCTCTAA AANTTACAGT ATTGTCTGTG AAGGTATCTA TACTAATAAA AAAGCATGTG 180  
TAGNAAA 187

SEQ ID NO:2426

LENGTH:185

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02796

SEQUENCE DESCRIPTION:

GATNCGTTT TNAACCCGNT CCTGCCCCAC CTGCCCTATA GTTATGGCCT GTGTTCTGCT 60  
CTCCTGGTCC CAGTGCACCG TCTGCTCTGT GAACTCCTCC CACCAGGCCC TTCTTACCCC 120  
ACGCGTGTCT GTCCCNCTCG TTCTGTAGCG GGNGGTACAT AATAAAACAA TGGNGTGGNG 180  
ACAAA 185

SEQ ID NO:2427

LENGTH:181

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02797

SEQUENCE DESCRIPTION:

GATCTATGTT TTCTGAAAAT AATTGGTTAA TGGAAGTTAT CTAATATATT TNAACTGTTC 60  
 CTGTTAAAAA CAATAGGCTT CAAGATGACA TAACACCAAA TCAAAAATNA CCAAAGGAAT 120  
 CATTTTGTTC GTTAGATTG TAATTTAGCA TCATTGGCAA TAAATCTACT CAAACGTTAA 180  
 A 181

SEQ ID NO:2428

LENGTH:180

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02798

SEQUENCE DESCRIPTION:

GATCCCAAAG GGGTTGGAGG CAGGGAATAT TTGAAAATTC AGACTGGAAT TCCAGGCCAA 60  
 AAGCTCAAGA CCACCAGCCT CTCCTCCTGC CTGGAAAAAT AAGCCTTTGT GAAAGACTGA 120  
 TTTACCATGT ACAATTGTGA TTGTGAACGT TGTTGAGTAA ACCTCCAGAC TTTCTCTAAA 180

SEQ ID NO:2429

LENGTH:186

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02799

SEQUENCE DESCRIPTION:

GATCATAAGT NAAAAATGTA TTTAATATAC CTAACCTACC AAACATCATA GCTTAGCCTA 60  
 GCCTGCCCTTA AACATGCTCA GAACACTTAC ATTAGCCTAC AGTGGGCAAA ACTATCCAAC 120  
 ACAAAATCTA TATTGTAATA AAGTTATAAA GANTTTTGAA TAAAANTTCA ATATTTGANG 180  
 TACAAA 186

SEQ ID NO:2430

LENGTH:180

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02800

SEQUENCE DESCRIPTION:

GATCTGGTGG AGGGAAGTGA AGATGAAGGC CTCTCAGGCA CCATGGATGG NATGGGTGTG 60  
 TGTNAAGGGG GCAGGGTCCC CAGGAGCTGC CCCAGGTCTG GCTNGACAGT TGCACGGNAA 120  
 GTCCTGTTTG TAAACTCAAC GTTCCACGN CTTTCCATT AAACCTTACC CCAAATCAAA 180

SEQ ID NO:2431

LENGTH:180

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02801

SEQUENCE DESCRIPTION:

GATCTATTTT TCCTAAACA TTCCCTCCC CACTCCTCTC CCACAGAGTG CTNNNTGTT 60

CCAGGCCCTC CAGTGGGCTG ATGCTGGGAC CCTTAGGATG GGGCTCCCAG CTCCTTTCTC 120  
CTGTGAATNG AGGCAGAGAC CTCCAATAAA GTGCCTTCTG GGCTTTTCT AACCTTTAAA 180

SEQ ID NO:2432

LENGTH:179

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02802

SEQUENCE DESCRIPTION:

GATCTTCACC AATGGCAAGT GGAATGACAG GGCTTGTGGA GAAAAGCANN TTGTGGTCTG 60  
CGAGTTCTGA GCCAACTGGG GTGGGTGGGG CAGTGCTTGG CCCAGGAGTT TGGCCAGAAG 120  
TCAAGGCTTA GACCCTCATG CTGCCAATAT CCTAATAAAA AGGTGACCAT CTGTGCAAA 179

SEQ ID NO:2433

LENGTH:273

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02803

SEQUENCE DESCRIPTION:

GATCTAAAAA TTCAATGCAA ATATCTTTTA TTTGGTAGTT TTGTCTACAT ATTTNATGCT 60  
CTAGCATGTG CAATATATCT TTGTAAAGCA CGATGATACA AATCTGGTGC CAGTGTATA 120  
TTTNGCATAA CATATTTGTA ACAGCATAAA ATATTGTTG ATGATTTCAG TGGGATTTTG 180  
TCTATAATGT TTTCTTATGT AAATNGGAGT TGAATGACTC TGGTAAATGT CATGACTGTA 240  
AAANTGGGGA AANTGACTTT NAGTTCAGTG AAN 273

SEQ ID NO:2434

LENGTH:178

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02804

SEQUENCE DESCRIPTION:

GATCCAAACT AATTTTACAT TTAATAAAAA AGTTAAACTA AACTTCTTTA CTGCTGATAT 60  
GTTTCCTGTA TTCTAGAAAA ATTTNACAC TTTCACATTA TTTTGTACA CTTTCCCAT 120  
GTAAAGGAT GATGGCTTTT ATAAATNTGT ATTCATTAA TGTACTTTA AAAATAAA 178

SEQ ID NO:2435

LENGTH:176

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02805

SEQUENCE DESCRIPTION:

GATCTAAAT AAATATTGTT AAAAGCATT CCTCTAGGGA ATGGGATTTA GATTAAAAA 60  
GGGTGGGATG GGAACTGTG TTTTTCATT TAAGTCCTC TGTACTANNT AATTGTNAC 120  
CTTGTGCATG TATTACTTTG AAAAAATTT TAATAAACCC AAATAAANT CTAAA 176

SEQ ID NO:2436

LENGTH:175

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02806

SEQUENCE DESCRIPTION:

GATCANCCCT CAAGGGCACA TGCCAAGGGC AGAGCAGCCC ATNTAGACAG CTTCGNAGGG 60  
CATGGGGGTG TAGGGAGTTC GGGGTAGCTC CTCATTAAT ATTTGTNGGN TGAGTAAAGG 120  
GGTGAGGCTC AGTGGCAGGT ACCTCTNCAA TNACAAGCTG CCNCCCCTCT ATGTN 175

SEQ ID NO:2437

LENGTH:175

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02807

SEQUENCE DESCRIPTION:

GATCGGCAGC AAGAGTAAAG ACACAGCTCC AGAGGCCAC ACTGTGGGGT CTGGGCCCTG 60  
CCTTAGGCAG CCCCCCTCT TGGCCCCCTC CTGTCAGGCC CAGGGCTTGG AGTGAAAGTN 120  
ACTCTCAGGT GGTGGGGTGG GGAATGTGAA TAAACATGAT TTCTTGCCGG GCAA 175

SEQ ID NO:2438

LENGTH:174

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02808

SEQUENCE DESCRIPTION:

GATCCCTTCA CTGGCCCCCT CGGGAGNCCT GGGTTGGACT CAGGGNCTCC NCCAGCTGGG 60  
GNGGNGGACC GCAGCACCTA TCTGAGCAGT TAGAGCGTCT TTTTTCAG ATTGTGTACA 120  
GTAGATTATT TATTTGTNA TTTTGGAATA AAATTTATT TATGGCTTAG GAAA 174

SEQ ID NO:2439

LENGTH:172

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02809

SEQUENCE DESCRIPTION:

GATCTTGTCT GAAATGCTAG TTTCTGACTA CAAAACTAC AGGACATAGT AGATATGCTC 60  
AGTAGAGCTG CTTAAATAA TTCCCTTTT TTTCTGTG AATTCTGTTA CAAAACCAGG 120  
TCTGTGTTAT AATAGAAANC AACTTATGA ATAAAAATCT TAAAAATTA AA 172

SEQ ID NO:2440

LENGTH:171

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02810

## SEQUENCE DESCRIPTION:

GATCAATGTC CCTGGTTACC TATGTGTTTG AATTATCTTC GTGTTACAGG TGTTTAATGA 60  
 TTTTNCCTCT TCTAGCTTAT TTGTATTTC CCTGTTTTTC TTAAATNAA CATGGTTACA 120  
 CTNTGTTTCA GCAACTGTAT AAATTAAACA CAGATNATTA CTA CTGCTAA A 171

SEQ ID NO:2441

LENGTH:170

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02811

## SEQUENCE DESCRIPTION:

GATCGTAAAA TTTTAAGCAC TAAAAATTTT TTCATAACCT TTCATAATAA AGTTTAATAA 60  
 TAGGTTTATT AACTGAATTT CATTAGTTTT TTAAGAGTGT TTTTGGTTTG TGTATATATA 120  
 CATATACAAA TACAACATTT ACAATAAATA AAATACTTGA AATTCTCAA 170

SEQ ID NO:2442

LENGTH:196

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02812

## SEQUENCE DESCRIPTION:

GATCTACTTT GAATCCACA CTCTCATTA TAAATTGANT AAAAGGGAAT ATTTGGCAC 60  
 CTGATATAAT CTGCCAGGCT ATGTGACAGT AGGAAGGAAT GGTTCCTT AACANGCCCA 120  
 ATGCACTGGT CTGACTTTAT AAATNATTTA ATAAATGAA CTATTATCAA ATAAACGTA 180  
 TGATTCAATC CTAAA 196

SEQ ID NO:2443

LENGTH:216

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02813

## SEQUENCE DESCRIPTION:

GATCAAATTT TTTCTTGCA ATNATGTGAT GAGTTGCCAA ATAATTGANA TTATTTTAAA 60  
 ATGTTTTGTT CATATTCTTG TTTTATAATT AAAATTTACA TTCAGTGTGT ATGGGTTTTT 120  
 TTTTNATTTT NACTCTTAAT GTAAGGTGGA TATTNCTGTN ATTTTACATG GTTCTTACT 180  
 GAGATTTTAT ATATAANTNA TAAAANGTTT ACCAAA 216

SEQ ID NO:2444

LENGTH:173

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02814

## SEQUENCE DESCRIPTION:

GATCGTTAAT GCCCTTGAAG TGGTTTTTGT GGGTGTGAAC AAATGGTGAG AATTGAATT 60  
 GGTCCTCTCT ATNATAGTAT TGAAATAAAG TCTACTTAAT TTATCAAGTC ATGTTTCATGC 120



CCTGATTTTA TATACTTGTA TCTATCAATA AACATTGTGA TACTTGATGT AAA 173

SEQ ID NO:2445

LENGTH:223

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02815

SEQUENCE DESCRIPTION:

GATCAGCTCC GTGGGGCTGG TTTTGGTCCA CAGCATAACA GGCAGTGCCT CCTTACCTGT 60  
GAGGAATGCA AAATAAGCA TGGATTAAGT GAGAAGGGAG ACTCTCAGCC TTCAGCTTCC 120  
TAAATTCTGT GTCTGTGACT TTCGAAGTTT TTAAACCTC TGAATTTGTA CACATTTAAA 180  
ATTCAAGTG TACTTTAAAA TAAATACTT CTAATGGAAC AAA 223

SEQ ID NO:2446

LENGTH:168

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02816

SEQUENCE DESCRIPTION:

GATCTGTAC TTTGTATAAA AACAAGAAAC GATTAGTTCA TTAACTTTT TCTTTACCTT 60  
CTGGTAGTAA AAATAGATAA AATAATTCCG TNTCAACTAC TGTGTGTAAA AAGCCTGTAT 120  
CATATGTAAC TGGGACTTTT GTAAATAAAT NTTTTGCGC TCTGCAAA 168

SEQ ID NO:2447

LENGTH:168

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02817

SEQUENCE DESCRIPTION:

GATCATAAAA TGTATCTTTT CCATGGCCAA CAAGNGCAT CTNTTATAAA TGCATAATAA 60  
CCCAGTTNGT ATCAAAGGGT ATCGACTTAA GTGAAATTC AACATGCTGT TACTTTTCC 120  
TTTAAATGTA ATNCTGTTTT CCAAATAAAT GGGGGAGACA AATGGAAA 168

SEQ ID NO:2448

LENGTH:135

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02818

SEQUENCE DESCRIPTION:

GATCTGTGCA ATAAAGTGTT TGCAGTCTTA TTATTCTCTA AGAAATTCCT TATGGACGTC 60  
ATAATTGTTG TATATTGAAC AAAATATTTA TACTTATGCA GTTGCAATAC ATTGAAATAA 120  
AAATTTAGCA TGAAA 135

SEQ ID NO:2449

LENGTH:167

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02819

SEQUENCE DESCRIPTION:

GATCCTGCCA GAAAATTTC AAGACAGTAG ATTGAAAAGG AAAGGCTTGG TAAAAAAGGT 60  
 TCAGGCATTC CTAGCCGAGT GTGACACAGT GGAGCAGAAC ATCTGCCAGG AGACTGNGCG 120  
 GCTGCAGTCT ACAAACCTTG CCCTGGCCGA GTGAGGTGTA GCAGCAN 167

SEQ ID NO:2450

LENGTH:167

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02820

SEQUENCE DESCRIPTION:

GATCAGNAGG CATCACTGAG GCCAGGAGCT CTGCCCATGA ACCTGTATCC CACGTACTCC 60  
 AACTTCCATT CCTCGCCCTG CCCCCGAGC CGAGTCCTGT ATCAGCCCTT TATCCTCACA 120  
 CGCTTTTCTA CAATGGCATT CAATAAAGTG CACGTGTTTC TGGTAAA 167

SEQ ID NO:2451

LENGTH:413

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02821

SEQUENCE DESCRIPTION:

GATCCGGTTT CTTTTGCTC GCCCCTGTTT TTTGTAGAAT CTCTTCATGC TTGACATACC 60  
 TACCAGTATT ATTCCCGACG ACACATATAC ATATGAGAAT ATACCTTATT TATTTTGTG 120  
 TAGGTGTCTG CCTTCACAAA TGTCATTGTC TACTCCTAGA AGAACCAAAT ACCTCAATT 180  
 TTGTTTTTGA GTACTGTACT ATCCTGTAAA TATATCTTAA GCAGGTTTGT TTCAGCACT 240  
 GATGGAAAAT ACCAGTGTTG GGTTTTTTTT TAGTTGCCAA CAGTTGTATG TTTGCTGATT 300  
 ATTTATGACC TGAAATAATA TATTTNGTNC TTCTAAGANG ACATTTTGTT ACATAAGGGG 360  
 ATGGCCTTTT TTATACAANG GGAATAANAT TNTGGGCATT TCCTATGGAA AAA 413

SEQ ID NO:2452

LENGTH:166

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02822

SEQUENCE DESCRIPTION:

GATCTGTNAT TGGCATCTTG GTTCTACCTT TTATCAGATG TTGTTGCCTT GTGCAAATNA 60  
 CATTTTCTCT GAGTCTCCAT TTTCTCATTT ATAACATGCG GAGAATAATA CTTATATTTG 120  
 TGGTAGTAGT GTGAACATTA AAAAGATAAT GTATGTGAAG TACAAA 166

SEQ ID NO:2453

LENGTH:165

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02823

SEQUENCE DESCRIPTION:

GATCCATGCT AATATTGTAT TTTTNTTAA AACATAGCTT TCCTGTAATT TAAAGTGCTT 60  
TTATGAAAAT ATTTGTAATT AATTATATAT AGTTGGAAAT AGCAGTAAGC TTTCCCATTA 120  
TAATATATTT TGNTATACAA ATAAAATTG AACTGAAGTC TGAAA 165

SEQ ID NO:2454

LENGTH:164

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02824

SEQUENCE DESCRIPTION:

GATCTTGTTA GAAGGCAGTA GGTCTGGGGT GGGGCCTGAG ATTCTGCATT TCTAACCAGG 60  
TCCTGGGAGA TGCTGATGCT ATCGAGCCAC AACCACACTT TGAGTAGCAA GCCTCTGGCC 120  
TATCCTTANN NNTTGTAATA TTAAATGCT GCCTCTCAGT CAAA 164

SEQ ID NO:2455

LENGTH:164

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02825

SEQUENCE DESCRIPTION:

GATCAATGCC AGATTTTNTT NTGGGGTAA GTTAGCTGAA GTCATTAAAA GATGGAAAGG 60  
TGGGAAAATN CTTGATATT TGATGTCATT GTATCCACAT TTNTTGTAAG ACATATTGCA 120  
TACCANTTAT AATNATATCA ATTAAAGTTG ATAAAAGCTT CAAA 164

SEQ ID NO:2456

LENGTH:164

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02826

SEQUENCE DESCRIPTION:

GATCCCTTCT GCCCTGGCAG AATGGCAGGG GTAATCTNAG CCTTCTNCAN TCCTTTACCC 60  
TAGCTGACCC CTTACCTCT CCCCCTCCCT TTNCCTTTGT NTTGGGATTC AGAAAAGTGC 120  
TTGTAAGAGA CTGTTTATNT TTAATNAAAA ATATAAGGCT TAAA 164

SEQ ID NO:2457

LENGTH:162

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02827

SEQUENCE DESCRIPTION:

GATCCAGAAT ATTTTCATTT AAAGCTCAAC CATTAATTGG AACATGGTGA AACATTGTAC 60  
ACATTGTAAA AGTAGGGAAC AGTACAAAAG AATGGAATCA AATACTATAT TATGTGAATA 120

ANCTAGAGTG ATTTTGAAT TTCACTCTCT TCACCCCTTA AA

162

SEQ ID NO:2458

LENGTH:161

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02828

SEQUENCE DESCRIPTION:

GATCAAAAAC CTCTATAGTA GCCACTAGGG CAAAAACTGT GTGTATGTGT GTGTGTAAGT 60  
GTGTGTACAC TGTTCATAT GGTTCATAT GTTACCAATA GCCACATGTG ACTATTTAAA 120  
TTCATTGCAA TGAATAAAA TTAAAGGTAT ACTAGCTCAA A 161

SEQ ID NO:2459

LENGTH:159

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02829

SEQUENCE DESCRIPTION:

GATCTTCACC TCTCTGCCCTC CCTACTGCCC CAACATAGCC TTGAGGAGGN TTCTCAGCCA 60  
CCAAAGGGTT CTGGCCCTT CTCACTCTCC TCTCCTCTCA GATGGAAGTC TGGTTATAAT 120  
GGTGTTAGTT ATCGAATAAA AACGACTTCA GAATGCAAA 159

SEQ ID NO:2460

LENGTH:159

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02830

SEQUENCE DESCRIPTION:

GATCAATTTA AAATATTTNA TTTCTTAAAA GCCTTTTTTG CCTGTTGTAA TGTGCAGGAC 60  
CCTTCTCCTT TCATGGGAGA GACAGGTAGT TACCTGAATA TAGGTTGAAA AGGTTATGTA 120  
AAAAGAAATT ATAATAAAG GGATACTTTG CTTTTCAAA 159

SEQ ID NO:2461

LENGTH:158

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02831

SEQUENCE DESCRIPTION:

GATCTATTTA ATTTGAGGT GATGTTCTAT CCAATGGCCG AAGATAGCAG CAGGTTTTTT 60  
TTTTCATATG TTGATTTGTT TCATTTGGAT TTTTTTTTNA TNATNCTTNA TTGCTTTTTT 120  
TTTNCCTCAT CCTGTCTTG NGATTTNCNG GCATGTTN 158

SEQ ID NO:2462

LENGTH:256

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02832

SEQUENCE DESCRIPTION:

GATCTGAAAT GTGATGATTA TTGGAATGCA TAAACATTGA CGTATTTTGG AATGTATTAA 60  
 AACTGAAATG GATAAAAATT AGTATATATG TTTATTTTGT TCTATCTCCT TTGGTTGTAT 120  
 TTTTCTCTGC AGTATTAAAC ATTTGGAAGA GACTAAAGGT ATGCAAAANT AATGTCTTAT 180  
 TTTCATTATG TGTGCTTCCA TTTGACACAT GGGAAATTAG ATTAATTCA CTATTAANTA 240  
 GNACTTTATA CAGAAA 256

SEQ ID NO:2463

LENGTH:156

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02833

SEQUENCE DESCRIPTION:

GATCTTGTGT CTA CTCTAGG ACTGGGCCCG AGGGTGGTTT ACCTGCACCG TTGACTCAGT 60  
 ATAGTTTAAA AATCTGCCAC CTGCACAGGT ATTTTGGAAA GCAAAATAAG GTTTTCTTTT 120  
 TTCCCTTTC TTGTAATAAA TGATAAAATT CCGAAA 156

SEQ ID NO:2464

LENGTH:156

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02834

SEQUENCE DESCRIPTION:

GATCTTCTCC TTTGTGAAGC ATCCCTCACC ACTACTACTG TGATGGGTCG GGGCCTTTCA 60  
 TCTGTTTTTC CACAGCATCT ATGCTTCTNT NCACTGTATC ATTTATCAAA TTGATNNTTN 120  
 CTGCGTCCTG TAAAAACAN NGAGTACCTT AAGAAA 156

SEQ ID NO:2465

LENGTH:191

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02835

SEQUENCE DESCRIPTION:

GATCTGCATT TATCATGAGT TCCTTTTTTT TTAAACTTT ATTTTGGGA AAGTAACACA 60  
 TGANGTAGTT CAGTCATGTC AGGTTTGTCT GGGGTGGANT GGACCAGTCA GGTAGTTGAA 120  
 AGTTTTTTTT TAGNGATGAA AAGCTTGTA NCNCCTGTAA ANCATGCTGN ATTTGAAATN 180  
 CATCTGTTNA N 191

SEQ ID NO:2466

LENGTH:155

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02836

## SEQUENCE DESCRIPTION:

GATCCACCCC CTGCCCACAA AAAATTGCTC CTAAGTCCAC CGCCTATCCC AAACCTACAA 60  
 GAACCTAATGA TAATCCCACC ACCCTTTGCT GACTCTTTTT GGACTCAGCC CACCTGCACC 120  
 CAGGTGATTA AAAAGCTTTA TTGTTCACAC ANAAA 155

SEQ ID NO:2467

LENGTH:154

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02837

## SEQUENCE DESCRIPTION:

GATCCTAGCA AATTTGCCCA ACCANCTTTA CTAAAGGGGG AGGAAGGGAG GGCAAAGGGA 60  
 TGAGAAGACA AGTTTCCCAG AAGTGCCTGG TTCTTTTAC TTTCCCTTT GTTGTCGTTN 120  
 TTGTAGTTAA AGGAATTTAA TTTTAAAAA GAAA 154

SEQ ID NO:2468

LENGTH:154

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02838

## SEQUENCE DESCRIPTION:

GATCGGGCCT AGCCCGGCAA CACTAATGTA GAAACCTTTT TTTTACAGAG CCTAATTAAT 60  
 AACTTAATGA CTGNTACAT AGCAATGTGT GTGTATGTAT ATGTCTGTGA GCTATTAATG 120  
 TTATTAATTT TCATAAAAGC TGGAAAGCAG CAAA 154

SEQ ID NO:2469

LENGTH:153

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02839

## SEQUENCE DESCRIPTION:

GATCACCCGG GGCTGTCTGC ATACAGACTT CTCAGGGGAG TTCTCAGCTT GGACCCTTAT 60  
 CTCCCAGAA TCCTGGAACC TGCTCCTTCT GCTCTCGTGA CTGACTGTGT TCTCTATGCA 120  
 ACTTCCAATA AAACCTCTTC ATTTGAAAGG AAA 153

SEQ ID NO:2470

LENGTH:154

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02840

## SEQUENCE DESCRIPTION:

GATCTTAAGC CCAGCTCTGT TCTGCCCCCG CTTTCTCTG TTGATACTA TAAATTTTCT 60  
 GGTTCCTTG GATTAGGGA TAGTGTCCCT CTCCATGTCC AGGAAACTTG TAACCACCCT 120  
 TTTCTAACAG CAATAAAGAG GTGTNCTTGT CAAA 154

SEQ ID NO:2471

LENGTH:152

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02843

SEQUENCE DESCRIPTION:

GATCACAGGC CTTGCTTTTG TAACAATGAT GACCCCGGCC TGTCTCATAT TCTGAAGAGG 60  
AAAAGTCAAA GTGTTGCTGN GGCTCCATAT TTCAACTAAA AATATATCTG TTGGAGAAAG 120  
AAATTAACAA TAAAGAATT TCATAGGTTA AA 152

SEQ ID NO:2472

LENGTH:151

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02844

SEQUENCE DESCRIPTION:

GATCGTATTC CCTGCTTTAA GGAAGTNTA GNCTTGTTTG GGTGATGAGA CAAAGTTCTT 60  
GAGACATTTA AACTGTATTT ACCAGTGTGA AAAATGTCAT TTATGGAGAT TAATTCATTA 120  
TGGAATAAAA ACATTGCCTA AGCCCTTGAA A 151

SEQ ID NO:2473

LENGTH:150

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02845

SEQUENCE DESCRIPTION:

GATCCAATCA GCTGTAAGTN TTAAGCACAG GGCTGAGGCT CCCTCCAAGT ACCCACTGGG 60  
AACAGCAGCT TCAACCTGAG CCCTGNGTCC CAGCCAGCCC CCACAATCAC CTATGCCCAT 120  
TCTTCAGAAT ACATTGGATG CATGTGCAAA 150

SEQ ID NO:2474

LENGTH:149

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02846

SEQUENCE DESCRIPTION:

GATCCAGAGA GTCTGAAGAC ATTTCTNATG CCTTTATATA TTGGAGAACC CTCCCCATT 60  
TTNATATCCT TTCTTCAAAA ATCTAAATNA TGTGCCTAAA AATAAGACAT GGCATAATAA 120  
GGTATAATTA AAGAGATAAT AGAATGAAA 149

SEQ ID NO:2475

LENGTH:153

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02847

## SEQUENCE DESCRIPTION:

GATCCAGTAC CTGAAAGATT TGATAGAAGA GGTCCGCAAG GCAAGGGGGA AGAAAAGGGT 60  
CCCCTAGTTG AGGATAGTCA GGAGCGTCAA TGTGCTTGTA CATAGAGTGC TGTAGCTGTG 120  
TGTTCCAATA AATTATTTTG TAGGGAAAGT AAA 153

SEQ ID NO:2476

LENGTH:147

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02848

## SEQUENCE DESCRIPTION:

GATCCTTTTG GAGTCAGACA GATGTGGTTG CATCCTAACT CCATGTCTCT GAGCATTAGA 60  
TTTCTCATTT GCCAATAATA ATACCTCCCT TAGAAGTTG TTGTGAGGAT TAAATAATGT 120  
AAATAAAGAA CTAGCATAAC ACTCAAA 147

SEQ ID NO:2477

LENGTH:207

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02849

## SEQUENCE DESCRIPTION:

GATCTCCAGT GATTGGCGAT TTGACCTGGT TTCTNCCTGG ACTATTTGAA TGGGTGGATT 60  
TGTTGGTGCA TCTCTGTCT TCTTTCCTTT TCCATTCTCC TNTATTNTN TATTACATA 120  
CTTGATGCA ACTNTGTAAT CTGATTNCCC CATGTAAACAT TNTAATTGA NGGGTGGTCT 180  
GCGTGTNCAC TGGAAAACAT ATNTATN 207

SEQ ID NO:2478

LENGTH:146

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02850

## SEQUENCE DESCRIPTION:

GATCGAGCTC ACAGGGGGCA CCCATCCTGN TAGTCAACAG AGTCTGAAGC AGTCAGGGTG 60  
TTGGATTCCCT CTGTTGTTGT CATCAATTCC TGCTGAGGGG TTTCTGGGGT TTTGTTTTTA 120  
ATAAATAACT CCTTTGTAGC CTTAAA 146

SEQ ID NO:2479

LENGTH:144

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02851

## SEQUENCE DESCRIPTION:

GATCCCGGCC AGCCAGGTGA CCCCCACGCT CTGGATGTCT CTGCTCTGTT CCTTCCCCGA 60  
GCCCCTGCCC CGGCTCCCCG CCAAAGCACC CCTGCCCACT CGGGCTTCAT CCTGCACAAT 120  
AAACTCCGGA AGCAAGTCAG TAAA 144



SEQ ID NO:2480

LENGTH:143

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02852

SEQUENCE DESCRIPTION:

GATCCAGGCA AATTCATGTT CTTTCTTTGT AACTCACTTT CTTCGTCAAC ATTTCTGTGA 60  
 CTCAATGGAT AGCATATTTT CATCAAGTAG CACGTATAAC GTGATGCTTT CATGTTTCTG 120  
 CCTTAAATAA AATAACCCTC AAA 143

SEQ ID NO:2481

LENGTH:290

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02853

SEQUENCE DESCRIPTION:

GATCTCTTTG ACTGCTGTAG TACTAAAGTG TACTTAATGT TACTANGTTN AATGCCTGGC 60  
 CATTTTCCAT TTATATATAT TTTTAAAGAG GCTAGAGTGC TTTTAGCCTT TTTTAAAAAC 120  
 TCCATTTTATA TTACATTTGT AACCATGATA CTTTAATCAG AAGCTTAGCC TTGAAATTGT 180  
 GAACTCTTGG AAATGTTATT AGTGAAGTTC GCAACTAAAC TAAACCTGTA AAATTATGAT 240  
 GATTGTATTC AAAAGNTTAA TGAAAAANTAN ACATTTCTGT CCCCCTGAAA 290

SEQ ID NO:2482

LENGTH:143

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02854

SEQUENCE DESCRIPTION:

GATCTGATTG AGATGTACAT AGTTTTTTTT TTTACCATAA CTGAATTATT TNATCTCTTA 60  
 TGTTAACATG AGAAATGTAT GCCAAATNAT TAGTTGATGT ATGTTTTTNA ATTTAATATT 120  
 TAAATAAAAT ATTTGGAAGG AAA 143

SEQ ID NO:2483

LENGTH:269

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02855

SEQUENCE DESCRIPTION:

GATCCTTATC AGGGAGAGCA GGAATCCTTA TTCCCGGTGT CGCTAGTACT CATCTCTGCC 60  
 GCCTCCTGTC TGCCCCCAGG CTGCTGCTNC TGCTGCCCTG TGGGTTGTGC CAAGTGTGCC 120  
 CAGGGCTGCA TCTGCAAAGG GGCCTCGGAC AAGTGCAGCT GCTGCGCCTG ATGCTGGGAC 180  
 AGCNCGCTCC NAGATGTAAA GAACGCGACT TCCACAAACC TGGNNTTNNT TATGANCAAC 240  
 CCGTACNGTN ACCGTTTGCN ATATTNCNN 269

SEQ ID NO:2484

LENGTH:140

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02856

SEQUENCE DESCRIPTION:

GATCATACAT TTTATATGGT TGGGACTTCT CTCTTCGGGA GATGATATCT TGTTTAAGGA 60  
GACCTCTTTT CAGTTCATCA AGTTCATCAG ATATTTGAGT GCCCACTCTG TGCCCAAATA 120  
AATATGAGCT GGGGATTAAA 140

SEQ ID NO:2485

LENGTH:139

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02857

SEQUENCE DESCRIPTION:

GATCCAACCC CACCCTCCTG GGTGCGGCCA GAGGCAAGGC AGTCGCCCGA GCTCCTGAAT 60  
CCCAAGAATG GTTCTGGCAA GTACTGCTGT TTGTTTGTAG GGGCAAAGAG TAAAAATAA 120  
ACGAGGTTCT GCCATGAAA 139

SEQ ID NO:2486

LENGTH:139

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02858

SEQUENCE DESCRIPTION:

GATCTGCCGG CTCCCGTCCA GCCTGTGTGG AAAGGAGGCC CACGGGCACT AGGGANNCNG 60  
AATTCTACAA TCCCGTGGG GCGGCCGGGT CGGGAGAGAA AGGTGGTGCT NCAGTNGTGN 120  
CCCTGGGGGG TCATTCGAN 139

SEQ ID NO:2487

LENGTH:138

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02859

SEQUENCE DESCRIPTION:

GATCTTCAAT GCCTCTGAGT CATTGTATA AAAATCAGT TATCACTATA CCATGCTATA 60  
GGAGACTGGG CAAAACCTGT ACAATGACAA CCCTGGAAGT TGCTTTTTTT AAAAAATAA 120  
TAAATTCTT AAATCAAA 138

SEQ ID NO:2488

LENGTH:231

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02860

## SEQUENCE DESCRIPTION:

GATCATGGTT CTCTTTGTAC GATAGTTGGG CATCTGTATT TCCACTTGTG TGAATTGCCC 60  
 TTAAATTTT GGTATGGGT TTCACCTTTT AAAATAATCA AACATATTTA TCTTTTCCTG 120  
 TGTGATAGGT TTTTNCCTGT ATCTTTTCCT GTTAAACACA CAGACCCCTC CCCAATCTGG 180  
 ACATTGAATA CNTATTCATT TTCCTTTGCN NNAATANNCC NNANACANAC N 231

SEQ ID NO:2489

LENGTH:137

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02861

## SEQUENCE DESCRIPTION:

GATCTGCCCC TGCATTGTAG CTGCTTAAC GGAGCACTTC TCCTTTTCC AAAGGTCTAC 60  
 ATTCTAGGGT GTGGGCTGAG TTCTTCTGTA AAGAGATGAA CGCAATGCCA ATAAATTTGA 120  
 ACAAGAACAA TGATAAA 137

SEQ ID NO:2490

LENGTH:135

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02862

## SEQUENCE DESCRIPTION:

GATCTTTAAA TTTTGAGACA GTATAAGGAA AATCTGGTTG GTGTCTTACA AGTGAGCTGA 60  
 CACCATTTT TATTCTGTGT ATTTAGAATG AAGTCTTGAA AAAAAGTTTA TAAAGACATC 120  
 TTTAATCATT CCAAA 135

SEQ ID NO:2491

LENGTH:286

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02863

## SEQUENCE DESCRIPTION:

GATCCAAATA TTTTCAAGCC ATGTAATCCA TTGGTTTTGT GGGCAGTTTA ATAAACCTGA 60  
 ACCTTTGTGT GTTTTCTAAT TGTACCTGAG TTGACCATCC TTTCTTTTA NAGTATATTT 120  
 CTNGTATGAT ATNTGTAAA GCTCTCACCT GGTCTTTTA TGGGGACTTT TCGTTTTTGG 180  
 GCAACTGCAG TGTATTTATG TGAANCTTTA TANGAGAATT ANTTTTTCCA TGTGCATATT 240  
 AATATGCTNC CTCCACACAT GGNNAGGGCA CAGTGGCTTC GTGTTN 286

SEQ ID NO:2492

LENGTH:135

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02864

## SEQUENCE DESCRIPTION:

GATCATGCCT CTTTCCAACA CGTGTTTACA ATCTCCAAAG GGACTGTATT TNTNCTCTGT 60

GCTTAATNTG ATTTGAAATA TGTTGAATCA AAGTGAAATA TTTATNTTTT GAATAAAGGA 120  
GATAATAGCC TTAAA 135

SEQ ID NO:2493

LENGTH:135

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02865

SEQUENCE DESCRIPTION:

GATCGAAAAC AAACGNTAGA TAATNCCCAA GGAGCTTACC AAGAGGCATT TNATATAAGC 60  
AAGAAAGAGA TGCAACCCAC ACACCCAATC CGCCTGGGGN TTGCTCTTAA CTTTCCNGTA 120  
TTNACTATG AGATN 135

SEQ ID NO:2494

LENGTH:135

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02866

SEQUENCE DESCRIPTION:

GATCATGCCA CTNCACTCAC ACTGACACTG CCTCGGACAA CAGAGCAANA CTNCATCTCA 60  
AAAACAAACA AAAAAATCA CAGNCTCATT TTAAAGGAGC AGCAACCNA CCAAATACAA 120  
NCTTCATTG ACAAN 135

SEQ ID NO:2495

LENGTH:134

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02867

SEQUENCE DESCRIPTION:

GATCATTAAC ATGCCAGGGC AGTTCCCACT GATTTAGATG GTCCAAGATA ATCTCATTCA 60  
GGAGGCTTGA AACATTAATG GTTTAGTCTT GTGAATTTA ACAGTTCTCT GTCATCGTTT 120  
AACAAAACCA ACAN 134

SEQ ID NO:2496

LENGTH:134

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02868

SEQUENCE DESCRIPTION:

GATCATGCCA CTGGACTCTG TGCTGAGCAA CAGAGTTAGA CCCTGTCTCT AAATAAATAA 60  
ATAACAAAT AACAGTAAA AAAATGTATA GTTCAATCCT TATCTGTATT AAACCTCCTT 120  
TAACTTGTGT GAAA 134

SEQ ID NO:2497

LENGTH:133

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02869

SEQUENCE DESCRIPTION:

GATCACATGT GGGCCCGTGT CTGGCCGCCG CCGCCCGGCC CCGTCCCTGC GGNCACCACC 60  
TAATTTATTG CCGTGCGTCC TGCTGCTGTG ACTGCTTTTG TACCTTTGCA ATAAAGAATT 120  
TTCTGGTTTC AAA 133

SEQ ID NO:2498

LENGTH:132

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02870

SEQUENCE DESCRIPTION:

GATCCTGGAC ATATTTTATA TTTATACCAA ATATTTTATA TATTTNCTAC TGTTGTCAAT 60  
GGTAGTGGTT TTTAAATTTT CAAACATTCA TTACTAGTAT ATAGAAATAN AATCACTTTT 120  
TAAAAATGTA AA 132

SEQ ID NO:2499

LENGTH:131

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02872

SEQUENCE DESCRIPTION:

GATCCTGTTT TTTCTTAACA AGTTGAGGCG TGGGTAGAGC AGGAATTGGT TTTCCAGCAT 60  
TGTGTCCGTA AACCTGAGTT AGAATAAGAT GTAACGGAAG CCACGATAAA GACTCGGTCA 120  
AATCCTGCAA A 131

SEQ ID NO:2500

LENGTH:133

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02873

SEQUENCE DESCRIPTION:

GATCCTGGAT GGAAGTGGCT TCTTTATCGA GAAGAATATA ATTCTCCATG AGGACTTAAT 60  
GAATCCAAAC CTGTGTCATG CCTGGTTTGC ATACCCAATT AAACACTNGA AATAAAAAATT 120  
NTTNGGTTNN AAA 133

SEQ ID NO:2501

LENGTH:130

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02874

SEQUENCE DESCRIPTION:

GATCTCTGCT CTTTGTGAGA GATTTGCAAA GACTCACGTT TTTNTTGTTC TCTCATCATT 60

CCATTGTGAT ACTAAGAAAC TAAGAAGCTT AATGAAAAGA AATAAAATGC CTATGTTGTT 120  
GTTCTAGAAA 130

SEQ ID NO:2502

LENGTH:130

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02875

SEQUENCE DESCRIPTION:

GATCAAAAAA GGCAGATGNA ANTACTTAAN ACTCAGTGTT TTGGAGAGAT TTCCTTTNAG 60  
TTTGTGTTGTT GGCTGGTTTG AACGATAGAA ATATGCAGCA TGCAATATAT GCTTATATTT 120  
NATTNAATN 130

SEQ ID NO:2503

LENGTH:129

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02876

SEQUENCE DESCRIPTION:

GATCCCCCAC CTGGCAGAGG ACCCAGTACA AAATAGGCAC TCAATAGATG TTACACCAAC 60  
TTTGAAGGG CAAACATATT TCTTAATGAG AGGCAGTCCT TCATGTTTTN CAATAAAATG 120  
ACTTTTAAA 129

SEQ ID NO:2504

LENGTH:129

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02877

SEQUENCE DESCRIPTION:

GATCTTCTCC GAGGCCACC GAAGGTACTG AAGAGCCTCA CCTGGGGGCA TTTTGTGGGT 60  
GGAGGGCCAG AGTGTGTATA CCCAGGCTTG TCTGGAAGGA GAAGGCCTTT GCTGCCTGAA 120  
AGTCTCAAA 129

SEQ ID NO:2505

LENGTH:129

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02878

SEQUENCE DESCRIPTION:

GATCTAAATA AGTGTTCAT GGAAGTTTT CCTAAGCAAA TGTAATATTA CCTCATTTGG 60  
GCATCATTAC TCTGTTAATT CTATATCAAA GGAATAAAC TTGCTACTTG CACTAAATGA 120  
AAAAACAAA 129

SEQ ID NO:2506

LENGTH:128

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02879

SEQUENCE DESCRIPTION:

GATCGTGCCC CGGGGCGCCG GCCCCTGNAG GGGCTCACCT GGATGGGGCC TGCAGTGCGT 60  
TCCCGCTTTG CTTCTTCCC TGGACGGCCC GCTCCCNAA ACGCGCGCAA TAAAGTGATT 120  
CGCAGAAA 128

SEQ ID NO:2507

LENGTH:127

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02880

SEQUENCE DESCRIPTION:

GATCACTCTT GTGGTTTTGG GGGATGGCAT TATAAGAGAG GAGACTGGAN ACAGGGGGGC 60  
TATTGTNATG CAGATTTGTT GGATGTCCAC CCAGCATTCA CTTTNNCCAT CTTTGGCCAG 120  
GGGNNNN 127

SEQ ID NO:2508

LENGTH:128

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02881

SEQUENCE DESCRIPTION:

GATCCACGC AGCGCTGAAC CGAACCGAGT AGGAAGCCTT TCTCCCCANG GCACGTGGCT 60  
TCAGGGCGTT TCCCATTTGAC CAAGTTTGAC CCTGNTTTGA ATAAAGAGAA GTGCGTTTGG 120  
ATTAGAAA 128

SEQ ID NO:2509

LENGTH:129

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02882

SEQUENCE DESCRIPTION:

GATCGAGCTT CTCCTCTGAG TTCTAACAAA ATGGTGCTTT GAGGGTCAGC CNTTAGGAAG 60  
GTGCAGCTTT GTTGTCCTTT GAGCTTTCTG TTATGTGCCT ATCCTAATAA ACTCTTAAAC 120  
ACATTGAAA 129

SEQ ID NO:2510

LENGTH:125

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02883

SEQUENCE DESCRIPTION:

GATCTCTGAT TTAACCGTGT ACTATCCACA TGCATTACAA ACATTTCGCA GAGCTGCTTA 60

GTATATAAGC GTACAATGTA TGTAATAACC ATCTCATATT TAATTAAATG GTATAGAAGA 120  
ACAAA 125

SEQ ID NO:2511

LENGTH:124

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02884

SEQUENCE DESCRIPTION:

GATCTTCCAT CTCCTCAGCA AAAAAATAGG AGCCCTGGCC CCCCAACTTT TTNCANAGTA 60  
ATAGCCTTAN TTCCTTCCCT ATCTCCTTAC CAAAGTACAN GTNACATCTT TCCCACCTTT 120  
CNTN 124

SEQ ID NO:2512

LENGTH:124

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02885

SEQUENCE DESCRIPTION:

GATCTACAGA TTCAATGCAA TTNCTATTAA AATCTNATCT GGCTTTTTTT GCATAAGCAA 60  
CAAAGGAAAA ANTAAGACAT CAAAATTNA AGANCTTTTG TCCTACAAAC AATATCATGA 120  
NGAN 124

SEQ ID NO:2513

LENGTH:343

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02886

SEQUENCE DESCRIPTION:

GATCAGAAAA TTCATATTTA AGCAAAGTGA TACAAACACA GTGATTTGGG AATGCCTTCA 60  
TTTACAATGC AATACTTAAA TTTTAATACT CTTGTAGGAG AAAAAGCAAC TGTATAAATG 120  
AATGTAGAGT GACTTTCTGC AATATTTCAA ACCTATATCA GAGAATTACA CTGTGGGAAA 180  
NCTACCATTG TAATAAGTGT AGCAAAATCT CCTAGATAT CTGAAAAGTC ATACTGGATG 240  
GAATCTGTAG GAAACGGTTC TATTTTGAGG GAAGGGGGAT TCCTTTTTGT TTTTAAAGTG 300  
AATTCAGAAA ATGTTATAAA TAANTCTTTT GGTTATTAT AAA 343

SEQ ID NO:2514

LENGTH:123

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02887

SEQUENCE DESCRIPTION:

GATCTNTACC CCACCCCTAT CTAACACCAC CTTGGNTCC CACTCCAGCT CCCTGTATTG 60  
ATATAACCTG TNAGGCTGGC TTGGTTAGGT TTNACTGGGG CAGAGGATAG GGAATCTNTN 120  
ATN 123



SEQ ID NO:2515

LENGTH:121

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02888

SEQUENCE DESCRIPTION:

GATCCAAAAT TACCTTCCTA TTGCATTTC TACTCCTTG CTACGNGTAT TGGACCTCTG 60  
GCCAAATNAC AAAAGATGTA CTCTTTGTNC TCTAAACCA CACTAAAGTT TTCTNACTNN 120  
N 121

SEQ ID NO:2516

LENGTH:122

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02889

SEQUENCE DESCRIPTION:

GATCAACCAA CCTTAAATAT ATGTATGTAT ATATGTATAT GTGAAAAACA GTTTGTATAG 60  
TTGGAATATT TGTNTTGTGA ATTACTTGTG ATGTTTAAAT ATAAANTTT TATTCAGTTA 120  
AA 122

SEQ ID NO:2517

LENGTH:122

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02890

SEQUENCE DESCRIPTION:

GATCTGGCAC CCCCTGGGTG GAGTGTCCCT CGGGGGCTTT GGGAAAGCAT GGCACCCTCA 60  
GACCACACAG TAGCCAAGTT CTGGAGCAAA TAAAGGCCT GTGTTATNTC TTGTNCTTGA 120  
AA 122

SEQ ID NO:2518

LENGTH:119

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02891

SEQUENCE DESCRIPTION:

GATCTCAAAG ATATGCACCA GTTTGAATAA ATGCTTGTTT AAAGATTAAA TTTTACAATT 60  
CATTTTAAAT TNCATTTTG TGACAATATT TCTAAACAAC GNCCATTTTA ATNACCAA 119

SEQ ID NO:2519

LENGTH:118

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02893

## SEQUENCE DESCRIPTION:

GATCATAGGA TAGCTGACTT TGACAGTCAC ATTTATAAAG TAATTCACCT AAAGATATAT 60  
ATTTTTTCA AACAAGTTTT GCTACTTTTG AAAATAAATC TTTCTTTATA TTGCTAAA 118

SEQ ID NO:2520

LENGTH:118

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02894

## SEQUENCE DESCRIPTION:

GATCCAAACC CATCTTCCTG GACCTGAAGC TTATGCTTCC AGGCACCCCA CTCCTGAGCT 60  
GAATAAAGAT GATTAAAGCT TAATAAATCG TGAATGTGTT CACATGAGTT TCCATAAA 118

SEQ ID NO:2521

LENGTH:118

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02895

## SEQUENCE DESCRIPTION:

GATCTGCACA GTGTTATGGC ACCCTACTTC CTGCAGCAAC GGGACACNCT GCGGCGCCAT 60  
GTNCAGAAAC AGGAGGCCGA GANCCAGCAG CTGGCAGATG CCGTCCTNNC AGGGCGGN 118

SEQ ID NO:2522

LENGTH:118

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02896

## SEQUENCE DESCRIPTION:

GATCCTATCT TTNCTGGCAG GACTGGNAGC CATGGTGGGC TACGTTNTGN TCAGCGGCAT 60  
TNTTCCATC CAGCGGGCAA CGCTGCTCGG GCCCCAGGCA CCCGGACCCT GGGCATGN 118

SEQ ID NO:2523

LENGTH:117

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02897

## SEQUENCE DESCRIPTION:

GATCTAGTCC GGACTTGCTG TGTATATTGT AACGTAAAT GAAAAAAGAA CCCCCCTTG 60  
TATTATAGTC ATGCGGTCTT ATGTATGATN AACAGTTGAA TAATTTGTCC TCAGAAA 117

SEQ ID NO:2524

LENGTH:116

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02898

## SEQUENCE DESCRIPTION:

GATCGTNATT NAGAATCCAT GTGAATAGAC CTGCGATGGC CAAGGCTGTT TAAGCNACAC 60  
TGGGTTGGAA ACACTTGGGC TCTCTCATNA TTATTAAAT TCTATTCAA TCTAAA 116

SEQ ID NO:2525

LENGTH:116

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02899

## SEQUENCE DESCRIPTION:

GATCCTTTGC NTTCAAGACT AAGTTAATAG AGAAGATGTT TGTAACNTG GCCCAAGCTT 60  
GGNCTCCCAG TGTATTGAAG CTAACCTCTT TNAGAAGCAC CACTCTCATA TATNAN 116

SEQ ID NO:2526

LENGTH:117

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02900

## SEQUENCE DESCRIPTION:

GATCTCTGGG TAAAGAGGCC GTTTATCTTT GTAAACACGA AACATTTTTC CTTTCTCCAG 60  
TTTTCTGTTA ATGGCGAAAG AATGGAAGCG AATAAAGTTT TACTGATTTT TGAGAAA 117

SEQ ID NO:2527

LENGTH:119

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02901

## SEQUENCE DESCRIPTION:

GATCTAGGAA GACTTTGGAA AGAGTAGGAA GACTTTGGAA AGACTTTTCC AACCCTCATC 60  
ACCAACGTCT GTGCCATTTT NTATTTTACT AATAAAATTT AAAAGTNTG TGAATCAAA 119

SEQ ID NO:2528

LENGTH:115

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02902

## SEQUENCE DESCRIPTION:

GATCCCAGG AGGCCTGGNC CGCCCAGAGG CTCCTCTCAG GCTGGGCCCC GACGTTTGCG 60  
NCAGTGTTCC TTGTGCCCGT GGGGCCGGGA GCNAGTAAAG TCTGGGCCAG GCAAA 115

SEQ ID NO:2529

LENGTH:119

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02903

2153480

SEQUENCE DESCRIPTION:

GATCACGTTT CAGGGTCCTC CAAAANGCTA GCCCGGCACT AACTAGGGA ATTCNCCCT 60  
CTCCTGTCAC TTGTCATGGT CTCCTTGGT ATTAAAGGCC ACCATTGCA CAAAACAAA 119

SEQ ID NO:2530

LENGTH:114

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02904

SEQUENCE DESCRIPTION:

GATCCAGAA ATGTAGCTTG TTTCATATTT TAGTCTTCTT ATTTTGTAA AATGTGTAGA 60  
ATTTGCTGTT TTTNTTTTTC TTTTGACAAC TCAGGAAGAA ACTGACCTCA GAAA 114

SEQ ID NO:2531

LENGTH:119

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02905

SEQUENCE DESCRIPTION:

GATCAGCCCC CAAAGAAATG GGGGTGCATG CTGGGCCTGG CCCCCTGGCC CACCCCACT 60  
TTCCAGGCA AAAAGGGCCC AGGGTTATAA TAAGTAAATA ACTTGNTGT ACAGCCAAA 119

SEQ ID NO:2532

LENGTH:113

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02906

SEQUENCE DESCRIPTION:

GATCTTGGCT TCTCAACAGG GCAAAGATAC CAGGCCTNCT GCTGAGGTCA CTGCCACTC 60  
TCACATNCTG CTAAAGGGAG CACAAATAAA GGTATTCGAT TTTTAAAGAT AAA 113

SEQ ID NO:2533

LENGTH:348

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02907

SEQUENCE DESCRIPTION:

GATCAAAATG TTTGAAGAAA GGAACCTTAT TTTTGCAAGT TACGTACAGT TTTTATGCTT 60  
GAGATATTTT AACATGTTAT GTATATTGGA ACTTCTACAG CTGATGCCT CCTGCTTTTA 120  
TAGCAGTTTA TGGGGAGCAC TTGAAAGAGC GTGTGTACAT GTATTTTTTT TCTAGGCAAA 180  
CATTGAATGC AAACGTGTAT TTTTAAATA TAAATATATA ACTGTCCTTT TCATCCCATG 240  
TTGCCGCTAA GTGATATTTT ATATGTGTGG TTATACTCAT AATAATGGGC CTGTAAAGTC 300  
TTTTCACCAT TCATGAATAA TANTANATAT GTACTGCTGG CATGNAAA 348

SEQ ID NO:2534

00927

LENGTH:111

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02908

SEQUENCE DESCRIPTION:

GATCTGATGG TTTTAAAAAT GGGAGCTTCC CTNCACAGAC TCTNTCTCTC GTGCCGCTGC 60  
CATGGCCATG TAAGNAGTGC CTTTNACCTT CCCCCGTGAT TGTNAGGCCT N 111

SEQ ID NO:2535

LENGTH:110

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02909

SEQUENCE DESCRIPTION:

GATCCCAACA GGACAAATCT GTGTACCTAT CTTTCTATCC TCCCTGAGCC TGTACCAACT 60  
AGATTCTTCA TATGTATTG TAACAGATTA AATTGGAAAG CAAACACAAA 110

SEQ ID NO:2536

LENGTH:110

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02910

SEQUENCE DESCRIPTION:

GATCCCCAAC TGCTCCAGCC TCTGCCCAAC TGAATCTTCA GCATGTTCTC ATCGGCGGAC 60  
TNTCTTGTGT AATGTAAACT GTGCCATGTT ATTAAAAAAT GTGAATAAA 110

SEQ ID NO:2537

LENGTH:110

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02911

SEQUENCE DESCRIPTION:

GATCTGTTTG GAAAACATAG ATTGTTTCC CCTCAAATAA GGGGAAAAAA AAANACCCTT 60  
TNTNCAAATN GNTTCTTTTG TAAAAAATA TTTTAAAAGG AAATCACAAN 110

SEQ ID NO:2538

LENGTH:109

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02912

SEQUENCE DESCRIPTION:

GATCTTTTAA ACTCTACTGT GTCATTAAGA TGCTTTGTAC AATGCCAAAC CATAGTTGGA 60  
GAAACTAAGT TTAATAAATA TCAAATAGAT TTTCTGTATT AAAGTTAAA 109

SEQ ID NO:2539

LENGTH:109

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02913

SEQUENCE DESCRIPTION:

GATCTCCCC ACCCTTGGAT TAGAGTTCCT GCTCTACCTT ACCCACAGAT AACACATGTT 60  
GTTTCTACTT GTAAATGTAA AGTNTTTAAA ATAAACTATT ACAGATAAA 109

SEQ ID NO:2540

LENGTH:109

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02914

SEQUENCE DESCRIPTION:

GATCTCCTNT CCCTCACTCA GTGCACGGGA CAGCTNCTCC TCCGTCACAG CTTTGGNATG 60  
AAAGACAGAA GACAGCATGA TTGGCCTCAC CCACGTGCAG GNCAAATNN 109

SEQ ID NO:2541

LENGTH:107

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02915

SEQUENCE DESCRIPTION:

GATCTGTCAC TCAACTTGCT GCGTNACCTG AACACGTCAC TTTACCTCTC TGTGCCTCAG 60  
TTTTCCCATG CATGAAAAAT AAAATAAAAT AAAACGGGGA TTCTAAA 107

SEQ ID NO:2542

LENGTH:112

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02916

SEQUENCE DESCRIPTION:

GATCAGTAAG GATTTACCTT CTGTTTGTA CTAAAACCAT CTACTATATG TTAGACATGA 60  
CATTCTTTTT CTCTCCTTCC TGAAAAATAA AGTGTGGGAA GAGACAAATA AA 112

SEQ ID NO:2543

LENGTH:109

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02917

SEQUENCE DESCRIPTION:

GATCATAGAA GGTGGGGTT CCAGAAAGGC ATCTGTGTGA TGGTTCCATT GATGTGGGAT 60  
TTCCCTACTT GCTGTATTCT CAGTTTCTAA TAAAAAGAAC CAAATNAAA 109

SEQ ID NO:2544

LENGTH:108

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02919

SEQUENCE DESCRIPTION:

GATCCAGGAG ATANTTTTT CATTATCCT GACCAAGACT GAGCCAGCTT AGCAACTNCT 60  
GGGGAGACAA ATNTNAGAAC CTTGTCCCAG CCAGTNAGGA TGACAGTN 108

SEQ ID NO:2545

LENGTH:343

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02920

SEQUENCE DESCRIPTION:

GATCGAGCCC AGCGTACAAC TTCCTCAAGT CGCCCAAAGA CAACGTGGAC GACCCACG 60  
GGAATTCCG CAGCGGGCC CTGACGGGT GCGGGGTGT CCTGCTGCNN NNGTGCCTC 120  
TCCTGGGCAT CGTTGTCTGC GCCGTGGTGG GGGCCGTGG GTTCCAGAAG CGGCAGGAGC 180  
GGAACAAGCG CTTCTACTGA GTGGCGCCTC CGGCGGTGGC CTGTCCCTGG GCCCAGGAGC 240  
CAATGTGAAC TTTTGTGGNT ACCGGGATTA TAAANGAACA ACAAGATGAC CTTATTTCTT 300  
AACTGTTCA AATAAATGA TTAAAGTAT TTTCAAAAA AGN 343

SEQ ID NO:2546

LENGTH:107

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02921

SEQUENCE DESCRIPTION:

GATCCTGCCG TGCCCCATC CTGGCTGTTG GGGGTGTCCT GAGCCACCT NNNTNCGCCT 60  
GTTCCCTTCA GCCAACCCGT TTCTGCAGTA AAATTAAGCC TGCAAA 107

SEQ ID NO:2547

LENGTH:105

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02922

SEQUENCE DESCRIPTION:

GATCACTGAA CCAGACACAG CATTGCTGAC ACATGAGACT AACACGTGCA ATTATTAAA 60  
AAGATTTCAA TAAACTNCC TGGCTGGCTC CGGGCCGCC CTAAA 105

SEQ ID NO:2548

LENGTH:103

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02923

SEQUENCE DESCRIPTION:

GATCCTGTGG GTTTAGTATC ATTATCTTCA GCTCTTTGAT ACNCTGTGTT AGAGTAATAG 60  
CTAAAGGAAG TTCATGTCAA TAAATTCATA CTTATATCAC AAA 103

SEQ ID NO:2549

LENGTH:104

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02924

SEQUENCE DESCRIPTION:

GATCCAGAGC TGGGGTGGAA GGAGAGCCAT TCTGAACGNC ACGNCTGGCC CGGTCAGTGC 60  
TGCATGCACT GCATATNAAA TAAAATCTGC TACAGGCCAG GAAA 104

SEQ ID NO:2550

LENGTH:103

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02925

SEQUENCE DESCRIPTION:

GATCCCNAGG CTCTGTTCCA TGAGCCTGTT GCANGTTTGT GTACTTTAGA AATGTAAGTT 60  
TTTGCTCTTA TAATTTTATT TTATTAAATT AAATTACTGC AAA 103

SEQ ID NO:2551

LENGTH:102

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02926

SEQUENCE DESCRIPTION:

GATCGATGAG GCAGGTCAGT TGTAAGTGAG TCACATTGTA GCATTAAATT CTAGTATTTT 60  
TGTAGTTTGA AACAGTAACT TAATAAAGA GCAAAAGCTA AA 102

SEQ ID NO:2552

LENGTH:102

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02927

SEQUENCE DESCRIPTION:

GATCATATCT AGTNTTNAAG TCTCTAGGAA CAATAGAGAT TATATCATAA CTCTGAAGAT 60  
GGACTCTAAA CTTTGGTTTA CCTCCATGGA AAATAANGCN NN 102

SEQ ID NO:2553

LENGTH:101

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02928

SEQUENCE DESCRIPTION:



GATCGAATGA GGGTTAAATG AATTATTCA TGTAAGCTC TTAGCCCTGT GCCTGGTACA 60  
TAGTAAATNC TAAATAAATA GTGGTATTCT TACTGTTTAA A 101

SEQ ID NO:2554

LENGTH:390

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02929

SEQUENCE DESCRIPTION:

GATCCAGCTT ATTCTTTTAT TTCAAGTCC ATTCTTGGGG CTGGTGGGGA GGCAGGAGAA 60  
TACCCCTCCC TAAGCCCTTA GTGTGTGCCG AGCTTGCTTT NGATGTTGG CAGGGGAGGG 120  
GAGACCTGGG TGGTGNCTGA GTTCCCTTTA TCAAACCCTT CAATGGGCAC AAAATTGAGT 180  
GCTTNNTTNN TAGGTTTTAT TTNNNNATGA ATGTCCAAAT CTGTGTTTCC CCCTGCCANA 240  
ACAGACTGTG TGGCCAGTTG AAAGTGTCTT GGTTTGTGGT TCATCTCTCC CTCATTTTCT 300  
TGGAGGCAGG GCCTGAGANC CCTGNCANAA TCTCCTATGG TTNTGAATCC ACGGCTTCTT 360  
TTTGGACATT AAAGGTTGAT TTGATGCAAA 390

SEQ ID NO:2555

LENGTH:227

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02930

SEQUENCE DESCRIPTION:

GATCTATCCT CAGCACTGCT GAGTGTGCAG TCACACTTTC CTACCAACCC NCTTCTTACC 60  
ATCTCTAGCT GCCATTGTG GGGGGAACAA AACAAGGGAA TCCTGATTGT GTACAGTATA 120  
AATTGTATTA TATTTTTTGT ACTTATGTTT TATGTAAATA GTTGTCTCA TTCAATTGTA 180  
TGTGAGCATT GAAATAAATC CTACCATTTA GGGGAAAAAA ATNNAAA 227

SEQ ID NO:2556

LENGTH:106

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02931

SEQUENCE DESCRIPTION:

GATCTTCAAA AATAATGCCT CTGTCTAGCA TGCCAACAAG AATGCATTGA TATTGTGAAC 60  
ATTTGTGATA TATGTATTAA TAAATAGAGC AATTACAAGC AGCAAA 106

SEQ ID NO:2557

LENGTH:99

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02932

SEQUENCE DESCRIPTION:

GATCTTTCTT ACACAGTGAT TCATTCTCTT ATTTGTACAG TGGCTTTATG AAATATTGTG 60  
AATTGATACT GTAATCAATA AAGTGCTTTT AACCAGAAA 99

SEQ ID NO:2558

LENGTH:98

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02933

SEQUENCE DESCRIPTION:

GATCCTGGTT CCCTGTTTGG AAAATTCACC ACCTCTAGCT CCTCACTGTT CTTTGTAATT 60  
AACACGCTGT TGGTAATCTT ATTAATTATT TAACCAA 98

SEQ ID NO:2559

LENGTH:97

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02934

SEQUENCE DESCRIPTION:

GATCTGGGGA CCCTGACTGC ACAGAACAGT GGGCGCNTTA CAGACCACCG ACCGCCGAG 60  
GGTGAATTAC ATCTTAATAA AGCTACTGTG AGAGAAA 97

SEQ ID NO:2560

LENGTH:93

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02935

SEQUENCE DESCRIPTION:

GATCGCCGCC AACATCCAGG CTGACTACTT GTATCGGTGA CGCCCCACCG GCCCGCAGCC 60  
CCTGCTGCCC AATAAAACCA CTCCGACCCC AAA 93

SEQ ID NO:2561

LENGTH:92

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02936

SEQUENCE DESCRIPTION:

GATCATCCCT TGACAGTAGT TTGCTTTCAT CTCACCTTTC ATTTGTCCCA AANNCACCTA 60  
TATTTAATAA AGTCCCCCCC NGTNGTCTCA AA 92

SEQ ID NO:2562

LENGTH:91

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02937

SEQUENCE DESCRIPTION:

GATCCACAAA ATGAGACAAT GCATGTGAAA ATCCATGCTC ATGTTCTAAA CATGGAACT 60  
AGGAGCCTAA TAACTTCCT AATTCAGTAA A 91

SEQ ID NO:2563

LENGTH:96

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02938

SEQUENCE DESCRIPTION:

GATCGTATTT TTATATCATA TTCACATATT TTTTTTTTA ATTGGTGTGA GATGACATGA 60  
TTAATAAAAA AGGCAAGATA TTTTCAGAAT TTGAAA 96

SEQ ID NO:2564

LENGTH:88

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02940

SEQUENCE DESCRIPTION:

GATCGCGCCA TCGCACTCTC AGCCTGGGCA ACAAGAGTGN AACTCCATCT CAAAAAATA 60  
AAAATAAAAT AAGTAAGNAA TACCTAAA 88

SEQ ID NO:2565

LENGTH:87

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02942

SEQUENCE DESCRIPTION:

GATCTAATAT ATATCATCAG AAAATATATA TTGTATGTTT ACTCTTATTT TCAGAAAGAG 60  
AAAATGAATA AAAATGATGA CATCAAA 87

SEQ ID NO:2566

LENGTH:87

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02944

SEQUENCE DESCRIPTION:

GATCGCTTGA NCCCAGGAGT TAAAACCAG CCCGAGGAAC ATGGCGAAAC CCCATCTTTA 60  
CAAAAAATAC AGAAATNAGC CAAGAAA 87

SEQ ID NO:2567

LENGTH:86

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02946

SEQUENCE DESCRIPTION:

GATCTAAGGG GTTGCCATGG TGTGAACAA TGCAACTTTT TATTAAAAA AGCTCTGCAC 60  
TGCCATGTAT GAAAGTNTCT TTATGN 86

SEQ ID NO:2568

LENGTH:86

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02947

SEQUENCE DESCRIPTION:

GATCCNGGAT TGCTGGGAAT GGAAGCCAGG TGGGGTCATG GCACAAGTTC TGTAATCTTC 60  
AAAATAAAAC TTTT TTTT TACAAA 86

SEQ ID NO:2569

LENGTH:85

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02948

SEQUENCE DESCRIPTION:

GATCCTGGCC ACTATGCCAG TTCTGACCTC GCATCCCCCT ACCCCGAGCC CATGCAGTCT 60  
GGGAACATGC CGCCTTCTCT CCAAA 85

SEQ ID NO:2570

LENGTH:85

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02949

SEQUENCE DESCRIPTION:

GATCAAATTG TACTAGTGTC TGCAGGGTTT GTCAGTACTC GTCAAAGCCA AGTCCAATTA 60  
AAAAAAAAAG TCTTTGCCCT CCAAA 85

SEQ ID NO:2571

LENGTH:85

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02950

SEQUENCE DESCRIPTION:

GATCTTTTCT TTAATAATTC TCTGCACACA CAGGACTTCT CATTTTCCAA TAAATGGGTG 60  
TACTCTGCCC CAATTCTAG GGAAG 85

SEQ ID NO:2572

LENGTH:85

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02951

SEQUENCE DESCRIPTION:

GATCTTTTAC CCCTTTCAC TTTGGCTTTC TTATGTTGCT TTCATGAATG GAATNGAAAA 60  
AAGATGACTC AGTTAAGGCA CCAAA 85

2153480

SEQ ID NO:2573

LENGTH:84

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02953

SEQUENCE DESCRIPTION:

GATCTGCCCTG ATGGGAGGGC TCCTGTCGAG GGAGACAGAC ATATCCCCAC TGAAAAATTA 60  
ATAAAATTGG TTTACATAT CAAA 84

SEQ ID NO:2574

LENGTH:84

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02955

SEQUENCE DESCRIPTION:

GATCTGACTG GAAAACAATC CTGTATCCCC TCCCAAAGAA TCATGGGCTT TTTTTTNAN 60  
TTAAAAAGCA GACAAATAGA CAAA 84

SEQ ID NO:2575

LENGTH:82

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02957

SEQUENCE DESCRIPTION:

GATCAAAAAGA AACTTAAAAA GTGGAATGGG ATATGGCTTT TGGTACCTGA AAATAAATNC 60  
TTTAATAATT GTAAGCCAGA AA 82

SEQ ID NO:2576

LENGTH:82

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02958

SEQUENCE DESCRIPTION:

GATCAAAAAT ATAGTTATAA TTTNTAAAT TTNAAAAATG TGATTGCNCT AATAAAGAAT 60  
AAAANCTATG CTTTAAACA AA 82

SEQ ID NO:2577

LENGTH:85

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02959

SEQUENCE DESCRIPTION:

GATCACTGCA GNTTCTAGGA CCCGGTTTCT TTTACTGATT TAAAAACAAA ACAAAAAAAA 60  
ATAAAAAAGT TGTGCCTGNN ACAA 85

00936

2153480

SEQ ID NO:2578

LENGTH:81

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02960

SEQUENCE DESCRIPTION:

GATCTCCCAT AATTGAAAT TGAAATCGTA TTGTGTGGCT CTGTATATTC TGTAAAAA 60  
TNAAAGGACA GAAACCTTAA A 81

SEQ ID NO:2579

LENGTH:79

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02962

SEQUENCE DESCRIPTION:

GATCCACCAT CTTATCTGG TGCCATCCCT GACTTGGCTT CTGTCATAA ATGCCTATTA 60  
AATGTTTCTT TCTGAGAAA 79

SEQ ID NO:2580

LENGTH:79

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02963

SEQUENCE DESCRIPTION:

GATCCAATTG CTGGTTACAT TTTGGGAAGC TCTCATTTTA GTGCTATGTA GTTTCATTGA 60  
ATAAACTGTT TAATATAAA 79

SEQ ID NO:2581

LENGTH:75

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02964

SEQUENCE DESCRIPTION:

GATCTAAGAG GAAAGTGGT ATCGGTTGCN NTTTATTTAT AAAGGATGCA AACATAAAAT 60  
TAGATTTTGG GCAAA 75

SEQ ID NO:2582

LENGTH:73

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02965

SEQUENCE DESCRIPTION:

GATCAGCCTT TTTGTTTCAA TGAGGTGTCC AACTGGCCCT ATTTAGATGA TAAAGAGACA 60  
GTGATATTGG AAA 73

00937

2153480

SEQ ID NO:2583

LENGTH:72

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02966

SEQUENCE DESCRIPTION:

GATCCCAGAG TGGCCTGCCT ATCACAACCA CATCCCTTCC CCCCACAAGG CAATAAATCT 60  
CATTCTTTA AA 72

SEQ ID NO:2584

LENGTH:72

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02967

SEQUENCE DESCRIPTION:

GATCAACGAC AAAATGCACT TCTCCCTCAA GNAGTGAGGC TTGGTCCAAT ACATGGCTCT 60  
GCCCCCAGA AA 72

SEQ ID NO:2585

LENGTH:72

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02968

SEQUENCE DESCRIPTION:

GATCAATCTT GTATTTCTG ACCACATAAA GGCTTCTTCT CTTTGTAAATA AAGTAGAAAA 60  
GCTCTCCTCA AA 72

SEQ ID NO:2586

LENGTH:166

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02969

SEQUENCE DESCRIPTION:

GATCTTGTTT CTGAAGATGG TTAAAGTTAT AGCTTCTTAA ACGAAAGAAT AAAATACTGC 60  
AAAATGTTTT TATATTGGC CCTTCCACCC ATTTTAAATT GTGAGAGATT TGTCACCAAT 120  
CATCACTGGT TCCTCCTTAA AAATTAAAAA GTAACCTCTG TGTAAA 166

SEQ ID NO:2587

LENGTH:71

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02970

SEQUENCE DESCRIPTION:

GATCATAGGA GAGACCCATT NGCTAGCTAC TTCATTCGTT CTGACCTAAT AATAAAAGTT 60

00938

AGAACCATAA A

71

SEQ ID NO:2588

LENGTH:72

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02971

SEQUENCE DESCRIPTION:

GATCTGACGT TCCTGTGAC TTAAGGGTCC GGCTTGGGAA TTAAAGTTTG TTTCTGGCCT 60  
TTAGCCTACA AA 72

SEQ ID NO:2589

LENGTH:70

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02972

SEQUENCE DESCRIPTION:

GATCTGGCCA GTCAAGGGTC CACAGGGTGC CAGCCTCTCA CCCTCAGAAT AAAGACATCA 60  
GCCATTCAAA 70

SEQ ID NO:2590

LENGTH:69

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02973

SEQUENCE DESCRIPTION:

GATCATCTAA ACTGAGTCCA GCTGCCTAAT TCTGAATATA TATATATATA TATATCTTTT 60  
CACCATAAA 69

SEQ ID NO:2591

LENGTH:68

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02974

SEQUENCE DESCRIPTION:

GATCCTTATT ACAGGAAAAG CATGAGTGGT GGCTAACCTG ACCAATAAAG TTATTTTATG 60  
ATTGCAAA 68

SEQ ID NO:2592

LENGTH:68

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02975

SEQUENCE DESCRIPTION:

GATCTTAGAT TTTATGTAGT ATTAAGTGAA AAAATACGAA AATAATAAAC ATTGAAGAAA 60



AAAATAAA

68

SEQ ID NO:2593

LENGTH:75

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02976

SEQUENCE DESCRIPTION:

GATCACATTT TCTGTTGGTT AACATTNTTC CTAGCTTATA TGATGGAATT AAATATATTC 60  
TGTGTAAAAA GGAAA 75

SEQ ID NO:2594

LENGTH:67

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02978

SEQUENCE DESCRIPTION:

GATCCACCTA ACAAGAAACC TAAAGTGTAG AGATTGCCAT TTNATTTGT AATTTTTTTT 60  
TTTTTTN 67

SEQ ID NO:2595

LENGTH:66

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02980

SEQUENCE DESCRIPTION:

GATCACACAC CGGCTGTATT TAATATGTAA CATTTTCACA NATATTAAAG ANACAGAAGT 60  
ATTAAA 66

SEQ ID NO:2596

LENGTH:65

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02981

SEQUENCE DESCRIPTION:

GATCAGCATG GGCCACGTAG NCGNGACTCC ATCTCTACAC ATAAATAAAA AATTAGCTGG 60  
GCAAA 65

SEQ ID NO:2597

LENGTH:63

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02982

SEQUENCE DESCRIPTION:

GATCCAATTT ATGTTTTTTC TTTNTTTATA TTTTGGGGAA AATTAAAATT TTTTAAAGGT 60

AAA

63

SEQ ID NO:2598

LENGTH:61

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02983

SEQUENCE DESCRIPTION:

GATCACGCAA TAATGACTAT GTAATCTCAA AAAACAAATA AAATATTCTT AACATGGCAA 60

A

61

SEQ ID NO:2599

LENGTH:60

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02984

SEQUENCE DESCRIPTION:

GATCCAAGCA GTGTGTCCT ATATACTGA TAAAAGCACT TGGTCTTNGA TTATCAGAAA 60

SEQ ID NO:2600

LENGTH:58

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02985

SEQUENCE DESCRIPTION:

GATCATTTTG CACATAGCTT TATCACTTT TAAACATTAA TAACTGATT TTTTAAA 58

SEQ ID NO:2601

LENGTH:58

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02986

SEQUENCE DESCRIPTION:

GATCTTTGCA GTTTTNGAC AATTACAAGT AAAGCTGCTA TAAACATTTG TATGCAAA 58

SEQ ID NO:2602

LENGTH:74

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02987

SEQUENCE DESCRIPTION:

GATCGACACG CAGCTAGCCT CCTGCATTGT ATGGTTATAA ATAGCACCT AGTGAGTNCT 60

GTCGTCCAGT CAAA

74

SEQ ID NO:2603

LENGTH:58

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02988

SEQUENCE DESCRIPTION:

GATCCTGGGG CAACCCATCT GGTCTCTGA ATAAAGGTCA AAGCTGGATT CTCGCAAA 58

SEQ ID NO:2604

LENGTH:56

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02989

SEQUENCE DESCRIPTION:

GATCACGTTT CGTGTTTCATA CTCAACGTTA ATAAAAGGAG AGAGTTTGTA GTGAAA 56

SEQ ID NO:2605

LENGTH:55

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02990

SEQUENCE DESCRIPTION:

GATCGCTGTG CCTGGCATAT AGTAGGTGTT CAATAAATGC CCTGTGACTC TCAAA 55

SEQ ID NO:2606

LENGTH:59

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02991

SEQUENCE DESCRIPTION:

GATCTATCCT CAACAACAAC AGAAAAAAGG AATAAATAT CCTTTGTTTC CTAGTGAAA 59

SEQ ID NO:2607

LENGTH:54

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02992

SEQUENCE DESCRIPTION:

GATCCATTTT AAAATTTGTA ATTCAATAAA GTTTTTTTTG TTGTTAAACA TAAA 54

SEQ ID NO:2608

LENGTH:53

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02993

SEQUENCE DESCRIPTION:

GATCTTGAT TCAGTCAGGT TAAACAACG GACAATAAAA GAATGAACAC AAA 53

SEQ ID NO:2609

LENGTH:52

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02994

SEQUENCE DESCRIPTION:

GATCTGGGGT GGGAGTAACA GGCAGAAAT GATTAAATG TTTGAGCACA AA 52

SEQ ID NO:2610

LENGTH:52

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02995

SEQUENCE DESCRIPTION:

GATCCTTTTT TTTTCCACA AAATTTTAC AAATAAAAAA TGTCCCTA AA 52

SEQ ID NO:2611

LENGTH:52

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02996

SEQUENCE DESCRIPTION:

GATCTCAAAG TGCCTTCTGA AGCATCAGAG ATTAAATATT GTTCAAATA AA 52

SEQ ID NO:2612

LENGTH:53

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02997

SEQUENCE DESCRIPTION:

GATCTGAATG GGGCTTNCCT GATGTTGGTA TCTAAGGCTT AGGCCTATAG ATN 53

SEQ ID NO:2613

LENGTH:50

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS02999

SEQUENCE DESCRIPTION:

GATCTTGAAT GTATTTTCTT AAGTTTATTA ATAGACATTT TCACAATAAA 50

SEQ ID NO:2614

LENGTH:50

TYPE:nucleic acid

2153480

TOPOLOGY:linear  
CLONE:HUMGS03002  
SEQUENCE DESCRIPTION:  
GATCTATCTG GAAAATGNAG GACTCCGAAT AAAAAGCTAT TACTAATAAA 50

SEQ ID NO:2615  
LENGTH:51  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS03005  
SEQUENCE DESCRIPTION:  
GATCAGGGGA AATNTTTAAG CTAAATAAAT CTGGGGGGTT TTTTATTCAA A 51

SEQ ID NO:2616  
LENGTH:165  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS03028  
SEQUENCE DESCRIPTION:  
GATCGAATGG TATATATTAG AAATTACATC TGTTGTAATT AAAATTGTGT GAGCAATTAA 60  
ACATGGTTGA NTTTTTCAAG CAAAAATCAG TTCATCTTTT GATGTAATTT TCTAGGCTAA 120  
ATGGCAATCT CTGAAAGATG AATAAAGCTA TATTATTTA GCAAA 165

SEQ ID NO:2617  
LENGTH:254  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS03030  
SEQUENCE DESCRIPTION:  
GATCACATTT TAAGCATCTN TCTCTCCTAC TCCATTTAGA AAAATAAGTA ACAGGTGAAA 60  
TGTGGTCTCA GTGTTAACGG GATAATTCTG CTACCGGCTC CTCCTGTATG ATTCTNAAAT 120  
ACACTACTGA ACGAGCTCTG GCTGGTCCTT TCTATCCTGG ATGTGGTTCT TCTGTGTAGC 180  
AATTCCTTGA NGTCCAGGTT GGAAAGATGT ACTCTTCTCA ACCAAGGAAA ACCTTAAATC 240  
CCGTCGTGGC CAAA 254

SEQ ID NO:2618  
LENGTH:271  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS03031  
SEQUENCE DESCRIPTION:  
GATCAACCCC AGACTGGGCC AGAATGTTAG TGAAGGTTTT ATTGTGCCCG GTTGGAGGAT 60  
AACGTTCTTT GGGTACTTTT TGTGGGTTGC AAATNAACTC AATTGCCACA AGTTTTAAAC 120  
TGGTGTAATA CAAGCTTGAC TTAATGTGAT TGTNACTGTT ATATCCAGNC TATACTGCTA 180  
GCAGCTGCTC ATACTGCAGT CAATTACTGG AAGCGGATAT ATTCCTATG CAAAACTGT 240

00944

TTAAACAATA AAATGAGCTA TGCTACAGAA A

271

SEQ ID NO:2619

LENGTH:489

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03053

SEQUENCE DESCRIPTION:

GATCCACAGC TTAAAGATGG GAATTCAGGT ATGAAAGAAA ACAGGCAAGG AGGCACTGAG 60  
 GGAGAAAGAC ACAGACTTTA TCGCTCTGTG GCTCATTGTT ACTGGAATAT NCTAAACTC 120  
 TTGTNCACAT GCTATTATGA CTTATAAAGC AGCAACAGCT GAGGCGCACC AGGACACAGC 180  
 TTCCATTCTT TTAACGCTCG TNCCTTAAC ATCGCTGAAA TNATTACTG TTGAAGAGAT 240  
 GCCTTGCGGT GTGGCCAGCT GTGAGGAGAA AGCAGCTGGC AGTGTAGGA CATTAGTCCA 300  
 CCTTCAGCGC AGGGTCTCTG GCCGGGTCTG ACTCAGAAAC CTTGGTACTC GNCCCTTGGN 360  
 CACAGTGCCC AGACCCATGT AACCNACTNG NTCCTGCATT AACCNAGAAA TACCTCGGTT 420  
 CTATNTGTGC ACTTAGCTGG GGAATTACCC ACTGTAATCA CCTNAATNAA NGGGTTNTAA 480  
 ACATGGAAA 489

SEQ ID NO:2620

LENGTH:471

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03055

SEQUENCE DESCRIPTION:

GATCCAAAAC GCTTCGAGGC ACCCCAAATN ACCTGCCCAT TCGTNAGGAN GACCCACCCA 60  
 CCCAGTGTTA TATTCTGCCT CGCCGGAGTG GGTGTNCCCG GGGGCACTTG CCGACCAGCC 120  
 CCTTGCCTCC CCAGGTTTGC AGCTCTCCCC TGGGCCACTA ACCATCCTGG CCCGGGCTGC 180  
 CTGTNTGACC TCCGTGCCTA GTCGTGGCTC TCCATCTTGT CTCCTCCCCG TGTCCTCAAT 240  
 GTNTTCAGTG GGGGGCCCCC TCTTGGGTCC CCTCCTCTGC CATCACCTGA AGACCNCCAC 300  
 GGCAAAACT GAATGTAANC TGTGNCCTGN GNCTCGGTCC AACTTGCGGN CCGTGTNA 360  
 CTNAACTNAG CTCCTTTAAC GGTAATATT CNNGGAAAAT CCCATGNTTG GGTTTTGGTC 420  
 TTTAACCTTG GTAACGGTTG AAATCCAATT AAAGNTTTAA AAGTCATGAA A 471

SEQ ID NO:2621

LENGTH:435

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03056

SEQUENCE DESCRIPTION:

GATCACCATT AAATCTGAAA GTACCTTTAA AAATACTGAG ATTNCTTCA TACTGGGCCA 60  
 GGNATTTNAC GAAGNACCTG CAGATGACAG GAAAGTCAAG AGCACCATAA CCTTAGATGG 120  
 GGGTGTCTTG GTACATGTNC AGAAATGGGA TGGAAAATCA ACCACCATAA AGAGAAAACG 180  
 AGAGGNTGAT AACTGGTGG TGGAAATGNT CATGAAAGGC GTCACCTCCA CGAGAGTTTA 240  
 TGAGAGAGCA TAAGCCAAGG GACGTTGACC TGGACTGAAG TTCGCATTGA ACTCTACAAC 300  
 ATTNTGTGGG NTATATTGTT CAAAAAGNTA TTGTNGTTT CCATGGATTT AGCAAGCAAC 360

TAATTTTNTC CCAAGCTNGN TTTTTCCTCAA TANTGGTNAC GTTGGNTAAA TAAANNTTTT 420  
TTTAGGNTTT TNAAG 435

SEQ ID NO:2622

LENGTH:411

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03058

SEQUENCE DESCRIPTION:

GATCTCATCA GGGGAAGGCT CTGTGATGCT GCAGGTTGAT GTAGACACAG TAAAAGGAGG 60  
GCTGAAGTTG AACCCCAACT NNCTGGTGGA CTTCGGGAAG GAGCCCCTTG GCCCAGCCCT 120  
TGCCCATGAG CTCGCTACC CTGGGGGCGA TTGTAGCTCT GACATCTGGA TTTGAACTCC 180  
ACCCCTCATCA CCCACACTCC CTATTTTGGG CCCTCACTTC CTTGGGGACC TGGCTTCATT 240  
CTGTCTCTC TTGGCACCAG ACCCTTGGA GCATGTACCA CACAGCCAAG CTGAGACTGT 300  
GGCAATGTGT TGAGTCATAT ACATTTACTG ACCACTGTTG CTTGTTGCTC ACTGTGCTGC 360  
TTTCCATGA GCTCNTTGAG GCACCAAGAA ATAACTNGT AACCTGTAA A 411

SEQ ID NO:2623

LENGTH:410

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03059

SEQUENCE DESCRIPTION:

GATCCAGGCG GGATGGAGTG TGGAGTGTGG GCACAGTGGC TTGTACAGGC CTGGNCTGGG 60  
CAGACTTGCC CCGGAGTCTC AGGCCACTGC GGAAGGAGGA CGCGTGGCCA GCAGGTGCCA 120  
CCAGGAGAGG AGAGGAGGGC CAGGCTGAGC TGCATCTNTG GACTCCAAGG AGAGCTTGA 180  
GAGGTGACTG AAACCTGCC CCACCCAG CCTGTNTCCA TCTGTGGTC CTTGGGCAA 240  
TTGCCTCATC TCTCTNAGC TCGAATGCGT AGTTTCAGGA CTAAGTAGG TACTGTGTAC 300  
CAACTGCCTC TGCCAACGGC CCGCACTGG GCANGCCTGG GGTACCTGG CTTTGGGGNA 360  
AGGAAGTAGG CCTTNGGAG GAGGCTGGAT TGCTTACAAT TTTNTTTTN 410

SEQ ID NO:2624

LENGTH:408

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03060

SEQUENCE DESCRIPTION:

GATCTGCGGC CCATCTACAT CTCTGTGCAG CCGCCTTCAC TGCACGTGCN GGAGCAGCGG 60  
CTGCGGCAGG CATACTGA AACCGAGGAG AGCCTGGTGA AGCGGCTNGC TGNTGCCAGG 120  
CCGACATGGA GAGCAGCAAG GAGCCCGGCC TGTTTGATGT GGTCTCATC AAGCAGAGCC 180  
TGGACAGGC CTACGAGAG CTGAAGGAGG CGCTCTCTGA GGAATCAAG AAAGCTCAA 240  
GGACCGGCGC CTGAGGCTTG CTGTCTGTT TCGGCACCCC GGGCCCATAC AGGACAGGG 300  
CAGCAGCATT GAGCCACCCC CTTGGGAAG CGATACGGCA GCTCTGTGCC CTTGGCCAGC 360  
ATGTTGAGT TGGAGGAGAT NCTTGCCCT GTTGGTTTG ACCATCCN 408

SEQ ID NO:2625

LENGTH:398

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03061

SEQUENCE DESCRIPTION:

```
GATCTCAACG AGACAAACGA TGGGTGGACC CGAACTCCCC GGTGCTCTTN GAGGACCCAG 60
TCCTTTNTGC CTTGGCAAAA AAGCACAAGC GAACCCAGC CCTGATTGCC CTGCGCTACC 120
AGCTGCAGCG TGGGGTTGTG GTCCTGGCCA AGAGCTACAA TNAGCAGCGC ATCAGACAGA 180
ACGTGCAGGT TTTTNANTTC CAGTTGACTG CAGAGGACAT GAAAGCCATA GATGGCCTAG 240
ACAGAAATCT CCACTATTTT AACAGTGATA GTTTTGCTAG CCACCCTAAT TATCCATATT 300
CAGATGANTA TTANCATGGA GGGCTTGCC TGATGGTNTA CCAGAAGCCC TGTGTGTGGN 360
TGGGTGACGC AGAGGGACGT CTCTNTGCCG GTGACTGN 398
```

SEQ ID NO:2626

LENGTH:394

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03062

SEQUENCE DESCRIPTION:

```
GATCACAGCT GGGGAAAAA AAGCTTTTA ATTCTGTACC TTCCTAGTAG ATAAGTGAAG 60
AGCAGGGAAA GAGACCTTTA AATATTTNC TATAAAAAA TTTGTGATAA GTTCTATCA 120
AAATGGGGAG ATTGCAGAAA AGGCTTCCCT TGGNTCCCA GGAGGTGTAG CAGGTGTGAG 180
CAATATTAGT GCCATGTGCC TTTCACACAG GGTTTGCAAT TATCAGTCTG TTTCCGATG 240
NNNNGGTACA TGAAAGAGTA CACCATGTGA AGAGAAGAGA GAATGATTGA AAATGTTTTA 300
GTATAGACCT CTTCTGCAG TGGGTGCTA TTTCTAGAT TTTACTTTTT AGGGACCAA 360
NTAAANTCCT TTGTTAAACN TGGGTCAGN NAAA 394
```

SEQ ID NO:2627

LENGTH:392

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03063

SEQUENCE DESCRIPTION:

```
GATCGCACCA TTAACTCCA GCCTGGGTGA CAGAGAGAGA CCCTGTGCCN NTCAAAAAA 60
TGTTTTTTT AAACAAGAAT CTCTCAGGCA TACTGAAATN TTGAAGAGGA AATNATATTA 120
ATATCTGGGA CTTGTTTCCA AATTGGAAT TGGGCAGGG TGTAATNGT TGGCAATATC 180
AAAGAAACGA GGAGTTGGAA TNATAATTGT AGAAGCTGCA TGATAGATAC ACATTCTTTA 240
TACTTCTGTA TATGTNGAAA TTTTNTATCA AATTATAATN GTGTATAATG ACTAATTATG 300
CTTNCATTGT CTATCTGTG TGGTTATGTN ACTTGCTGAA ATNNATACAT AANGGGTCTT 360
CAACCTTAN NTGGTCTTAT CCANGGCATA NN 392
```

SEQ ID NO:2628

LENGTH:385

TYPE:nucleic acid



TOPOLOGY:linear

CLONE:HUMGS03064

SEQUENCE DESCRIPTION:

```
GATCTGTAAT NATCTCTATT GGCCTGGGGT GCCTGTGCTA TAAATAAGTT TCTTCACATG 60
AAAAACACAG CCAGCCCAAG ATNACTTATC TGGGTTTAGG ATTCAATAGT ATTCACTAAC 120
TGCTTATNAC ATGAGCAATT TCATCAAATC TCCAAACTCT TAAAGNATGC TTTCGGAAAA 180
CACGCTGTAT ACCTAGATGA TGAATAAATG CAAAATCCTT GGGCTTTGGT TTTTCTTAG 240
TAAGGATTTT AAATAACTGC CGACTTCAAA AGTGTCTTA AAACGAAAGA TAATGTTAAG 300
AAAAATTGA AAGCTTTGGA AAACCAAATT TGTAATATCA TTGTATTTT NATTAAAGT 360
TTGTAAATAA ATTTCTAAAT TAAA 385
```

SEQ ID NO:2629

LENGTH:385

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03065

SEQUENCE DESCRIPTION:

```
GATCGGGGCC CTGGGGCTGT NAGACCCCGA CCNTCTCGAG GAACCCTGCC TGAAACGCCT 60
CCATTACCAC TGCAGAGTGA GATGAGGGGA CTCACAGTTG CCAAGAGGGG TCTTGCCGT 120
GGGNNGGNTC GCCAGCCACT CACCAGCTGC ACTGAGAGGG GAGGTNGCA CACCCTCCC 180
CTGGGCCGCT GAGGCCCGCG CACCTGTGCC TTAATCTTCC CTCCTGTG CTGCCGAGC 240
ACCTNCCCCG CCCCTTACT CCTGGGAACT TTGCAGCTGC CCTCCCTNC CCGTTTTTAA 300
TGGCCTGCTG AAATATGTGT GTGAAGAATT ATTTATTTT GNCAAAGCAC ATGTAATAAA 360
TGCTGCAGNC CNGCCTNTGC CAAA 385
```

SEQ ID NO:2630

LENGTH:385

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03066

SEQUENCE DESCRIPTION:

```
GATCCCGGN AGTNACAGGT GCCGACGTGA TGTCGCTTCT NTGGTGCCA GCTCCCTTCC 60
TGGTCTNANA CTAGCTCTGG GGGTGGCGGG GGCCCCACA CGCTGCTCCC GCTCCACCCT 120
GCCCCNCTG CTGCTCTGTG CCTGCTGTCA GAGCCCTGGT GGGGGAGGAT GTGGCCACC 180
TGAGACCCGG AGGAGACGGG CGTCTGCCTG GNTTGCGBA GAGCNGCTTA TGGGTGTGGT 240
CCGTCCAGAC ACCTTGTTC AAGGGGATG GCGTNANGG GCAAGCAGAG CATCCCCACC 300
GNTGAGCAAG AACTTTTCT TGTTTTAAA CCATCACGTC CTCATTTAC AATTGGAATA 360
AAGTGAGTTT TTTGAAACC TAAA 385
```

SEQ ID NO:2631

LENGTH:381

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03067

SEQUENCE DESCRIPTION:

GATCGCAAGG AACTGGGCCG CCTACTACCC CGACCTGCCC ACCCCAGAAC AGCAGCAAGA 60  
 CATGGCCCAG TTCATACATT TATTTTCTAA GTTTTACCCC TGTAAGGAGT GTGCTGAAGA 120  
 CCTAAGAAAA AGGTTGTGCA GGAACCACCC AGACACCCGC ACCCGGGCAT GCTTCACACA 180  
 GTGGCTGTGC CCCNTGCACA ATGAAGTGAA CCGCAAGCTG GGCAAGCCTG ACTTCGACTG 240  
 CTCAAAAGTG GATGAGCGCT GGC GCGACGG CTGGAAGGAT GGCTCCTGTG ACTAGAGGGT 300  
 GGT CAGCCAG AGCTCATGGG ACAGCTAGCC AGGCATGGTT GGATAGGGGC AGGGCACTCA 360  
 TTAAAGTGCA TCACAGCCAA A 381

SEQ ID NO:2632

LENGTH:370

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03068

SEQUENCE DESCRIPTION:

GATCCGTAAG TCCATGACCA AGGAGGCCAT CCGAGAGCAC CANATGGCCC GCACTGGCGG 60  
 CACGAGACAG ACCTGTNCAC CTGCGGCAAG TGCAGGAAAA AGAACTGCAC CTACACACAG 120  
 GTGCAGACCC GCAGCTCTGA TGAGCCCATG ACCACCTTTN TTGTCTGCAA CGAGTGTGGA 180  
 AACCCTGGA AGTTCTGCTG ACCCCTCGTG TAGATGTGCT GCAGCCTTGG GCCCTCCCCG 240  
 GCCACGTCC TCCGTTGACA CAGCTTCTNT GGAGACCCTA GAAGGCGGCA TGTCTGCCC 300  
 TCAACCTGCC TGCNTGGATT GCACCTTTCT GCCCTTTCCC CNTNATTATT AAATGTTTCT 360  
 TTTTGCCAAA 370

SEQ ID NO:2633

LENGTH:344

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03069

SEQUENCE DESCRIPTION:

GATCTTCTTC AAGCCATTAT TTAACTCAA GAAACTCTA GAGAAGAAAA GTGAAGAAGT 60  
 CATGTTGAAG AAGATGTAAG AATGTGTCAA GACCATCCAG AAATNATATG AGAAATACTG 120  
 ATATTTTAAA TGGTTGACAT CATCCAGCGA AATGAATCTA CATTAAATGT TGTTTTAACT 180  
 GCGCTATGAT TAAAACCAAT CATATAGAGT TAGTNTTAC AACTACTATT CTGTTATTTT 240  
 TTTTAAATC TGACAACATT TGTCTAAGT AAGATAAGCA AAAAAATTCT TCAACTCCTT 300  
 TTGGCAAGAA AACTGTAACA GAAAATAANT TTTGAATGTG TACN 344

SEQ ID NO:2634

LENGTH:341

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03070

SEQUENCE DESCRIPTION:

GATCCCTGGT CCAGAATTCC ATTTACCTTC TGGGCCAGAT ACCACCAGAA TGCCCGCTCC 60  
 ANATCCCTC AGACCTTTGC CGGTCCCAT ATTGGTCTG GTGGTACAGC CAGTGCCAAC 120  
 TTCGCTGCCA ACTTTGGTGC CATTGGTTTC TTCTGGGTTG AGTGAGATGT TGGATATTGC 180  
 TATCAATCGC AGTAGTCTTT CCCCTGTGTG AGGCTGAAGC CTCAGATTCC TTCTAAACAC 240

AGCTATCTAG AGAGCCACAT CCTGTTGACT GAAAGTGGCA TGCAAGATAA ATTTATTTGC 300  
TGTTCTTGG GCTACTGNTT TTTTCCCT TGTGTGCTGT N 341

SEQ ID NO:2635

LENGTH:340

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03071

SEQUENCE DESCRIPTION:

GATCGNCAAG AAAATTNAGA TTGGCGATGG GGCAGAGCTG ACGGCAGAGT TCCTCTACGA 60  
CGAGGNGCAC CCCAAGCAAC ACGNCTTCAA GCAGGCCTTC GCCAAGCCCA AGGGCCCAGG 120  
GGGCAAGCGG GGCCATAAGC GCCTCATCCG NGGCCCGGGT GAAAATGGGG ATGACAGCTA 180  
GGAGGCTGGA GCATNNGNCG GCCACGTNTG GACTGTGGGG CTGCCACCT TCCGCTCCCT 240  
GCCACCATCC TCCTTCCTGG GCTCCAGGAA AGTNTTCTG GGAGGTCAGG AGGGCTGGCA 300  
GCTTGAACGC ACTTGACGG TCCGANGNC ACCGGGCTTN 340

SEQ ID NO:2636

LENGTH:335

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03072

SEQUENCE DESCRIPTION:

GATCTGTCTG CNTTCTCAA GACCATTGCA CTGAATGGTG TGGAGGACGT GCGAACCGTG 60  
CTGGAGCACT ATGCCCTGGA GGATGACCCG CTGGCGGCTT TCAAACAGCG GCAAAGCCGG 120  
CTAGAGCAGG AGGAGCAGCA GCGCCTGGCC GAGCTCTCCA AGTCCAACAA GCAGAACCTC 180  
TTCCTTGGCT CCCTCACCAG CCGCTTGTGG CCTCGCTCCA AACAGCCCTG AACTCTGGGC 240  
CTCCTCAAAC TCAGTGCTG GGTCCAGGGC CCCAGTGCTT CCAGACCAAG ACTTGGGCCA 300  
CCACTTNTCC AATAAAGTAC ATCCGAGACG GCAA 335

SEQ ID NO:2637

LENGTH:332

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03073

SEQUENCE DESCRIPTION:

GATCCAGTTG TGAACAAAGA GTCCTCTTNG TGGAAAAGAA AAAAATACAT NTCCCTTTAA 60  
ACGGTGGATT GAAAATAACT TTNATTTATA AAGAGAAGAC TGAGGGCGGG GATACTGATT 120  
CANNAATCCT GTAGCGTGTA ATAAAAGAAG AGGAAATGGC ATGGAATCAC TGCCTCCTGT 180  
GATTTGAAGG CCATTGTGAA GGAAAACAAT GCAGTGAAAG AAAGTTCTTC ATATTAGGCC 240  
AGATATCATT GCATCACATT TATTTATCTT TCTGGNATTT TTATAGCCCT TAATAAAAAA 300  
TATTAATA GCCTGTGCTA TTGTGTCTTA AA 332

SEQ ID NO:2638

LENGTH:335

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03074

SEQUENCE DESCRIPTION:

```
GATCAAGAAT TTGGTGTGGA CGTTGGCCCT GTTGTCTTTT TATAAACCAA ACTCTATCTG 60
AAATCCCAAC AAAAAAATT TAACTCCATA TGTGTTCTC TTGTTCTAAT CTTGTCAACC 120
AGTGCAAGTG ACCGACAAAA TTCCAGTTAT TTATTTCCAA AATGTTTGA AACAGTATAA 180
TTTGACAAAG AAAAATGATA CTTCTCTTTT TTNGCTGTT CACCAANTAC AATTCAAATG 240
CTTTTNGTTT TATTTTTTTT ACCAATTCCA ATTTCAAAAT GTCTCAATGG GGCTATAATA 300
AATAAACTTT CAACACTCTT TTATGGTNAA CCAA 335
```

SEQ ID NO:2639

LENGTH:384

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03075

SEQUENCE DESCRIPTION:

```
GATCAAGCCT GCCTCAATCA GTATTCATAT TTATAGCCAG GTACCTTCTC ACCTGTNAGA 60
CCAAATTNAG CTAGGGGGGT CAGCCAGCCC TCTTCTGACA CTAAACACC TCAGCTGCCT 120
CCCCAGCTCT ATCCCAACCT CTCCCAACTA TAAACTAGG TGCTGCAGCC CCTGGGACCA 180
GGCACCCCA GAATGACCTG GCCGCAGTGA GGCGGATTGA GAAGGAGCTC CCAGNGGGGG 240
CTTCTGGGAA GACTCTGGTC AAGAAGCATC GTGTCTGGCG TTGTGGGGAT GAACTTTTGT 300
TTTTGTTTCT TCCTTTTTTA GTTCTTCAA GATAGGGAGG GNAGGGGGGA ACCATGAGCC 360
TTTGTGGCT AATCANTCCC AAGN 384
```

SEQ ID NO:2640

LENGTH:352

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03077

SEQUENCE DESCRIPTION:

```
GATCAAAGGT TTAAAGTCTA ACTTCTAAGA TATATTTGCA GAAAGAAGCA ACATGACAAT 60
AGAGAGAGTT ATGCTACAAT NATTTCTTGG TTTCCACTTG CAATGGTTAA TTAAGTCCAA 120
AAACAGCTGT CAGAACCTCG AGAGCAGANC ATGAGAACT CAGAGCTCTG GACCGAAAGC 180
AGAAAGTTTG CCAGGNAAAA AANNGGCATC ATTATTACCA TCGATTCACT GCCTGGTTAA 240
NGNGGNAAGC TACTTNGTT TNAGTGGCAG CCNCNTNGCA CGTGGTTTGC TATGNAGGTG 300
AANGGTTTCC CAATTCCTTC AGGCTTTTNN GGGGGTTTTT GGGCTCTNCC TN 352
```

SEQ ID NO:2641

LENGTH:321

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03078

SEQUENCE DESCRIPTION:

```
GATCAAACAG CTCTAAGTAT GAAGCAAGAG TAAAGACTAA GGTTTCGAGA NCATTCCTAC 60
TCACATAAGT GAAGAAATCT GTCAGATAGG AATCTAAATA TTTATAGTGA GATTGTGAAA 120
```

GCAACCTTAA AGTTTTGAAG AAGACTGATG AGACTAGGTG CNNNGCTTCC TTTCATCAGG 180  
 TATCTTTCTG TGGCATTGA GAACAGAAAC CAAGAAACAT GGTAATTNCT AANTTATGAG 240  
 GCTTTGCTTT TTGTTTGCTT TTAAGTAGAA AACCATGTTG GCAACATTGA GTTTTGGNGT 300  
 TGATTGAGAT AATATGNCTT N 321

SEQ ID NO:2642

LENGTH:320

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03079

SEQUENCE DESCRIPTION:

GATCTTTGGC TGGAAACTA GAATTTATAG CAGTTTATTA ATGATACCTT AAATNACTCA 60  
 GGACTTAATG TAGCATTGCA CTTCTGTGTA CAGTAAACT GCTTTGTTTT ACTAAAGAGA 120  
 AAAATGTGAG TGGAAAAAAT ATGTATGTGT TATATACTCA AATGTATATA ATNCTATCTA 180  
 TAGATTTATA TATGTATACA TTCTGTACAG TAGTTCCATC AAAATATGTA ATAATTCACA 240  
 CCAATTTTAT TAAATGTATT TNCTTTTCA AAATTTAAAT TGAGCTGCTA TCAATATTAA 300  
 ATGAAGTTAT GGCATCTAAA 320

SEQ ID NO:2643

LENGTH:303

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03080

SEQUENCE DESCRIPTION:

GATCCCTTCG ATGTGGATTC AGGGAGAGAG TTTGGAAACC CCAACAGGCC TGTGGCATGC 60  
 ACCCGGCTGC CCTCGGACAC TGATGACAGT GATGCGTCTG AGGACCCAGG GCCTGGCGCC 120  
 GAGCGCGGAG GAGCCAGCAG CAGCTGCTGT GAAGAGGAGC AGACGCAGGG ACGGGGGGCT 180  
 GAGGCCAGGG CCCCGGCTGA GGTTTGGAAG GGAATCAAGA AACGGCAGAG AGACTNAGGG 240  
 TTGCAGACAC ATATATTTTT GAGGCTGGGT GACGAGAAAA TCTAGAGACA TGAGGGACAT 300  
 AAA 303

SEQ ID NO:2644

LENGTH:315

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03081

SEQUENCE DESCRIPTION:

GATCCAGACG CAAGANGGCT GTCCTCTCTA AGGAATATGG TTTTTNCTT CTAAGTGGT 60  
 CTGCCAGCTT TATAATGGTG GCCCACCTAG CCATCANTGT TTCCAAGGCC CGCAAGANGT 120  
 ACAAAGTGA GTATCCTATC ATGTACAGCA CGGACCCTGA AAATGGGCAC ATCTTCAACT 180  
 GCATTCAGCG AGCCACACAG AACACGTTGG AAGTGATATCC TCCCTTCTNA TTTTTNCTAG 240  
 CTGTTGGAGG TGTATACCAC CCGCNTATAG CTTCTGGCCT GGGCTTGGCC TGGATTGTTT 300  
 GGACGAGTTC TTAN 315

SEQ ID NO:2645

LENGTH:314

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03082

SEQUENCE DESCRIPTION:

GATCCTTCTT GGCCCCAGAA AGTCATTTGG CATGGCTCCA GCCCCCATGG CATCCGCTTN 60  
 TGGATAACTA CTGTGAAGCA TGGCGAACCG CGGACACAGC GGTACAGGGA CTGCCTCCC 120  
 CGCTGAGCAC GGGGAAGATT CTGGACCAGA AAGCATAAG CTGTGCTAAT CGGGCTAATT 180  
 GTCCTATGTA TCGAAAACAG TTTCATGNCA GNCGTTAGGA AGTAATTGGC TTCTTNATGA 240  
 TTCTTAAAN GNGTTTTCAA TTTTCCTAA TGNGAAGNGT TGNCAGTGA ATCTAAATG 300  
 TTTANTTGTG NAAA 314

SEQ ID NO:2646

LENGTH:310

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03083

SEQUENCE DESCRIPTION:

GATCACTGTG GACAGGGTGC AGCTCTACCA GTTCCTGTTT CTNCTGAGCC AGACCCTCTT 60  
 CAGGGAAGGG ACCAATTAAT TTAAAACTC ACTTGAAGCA CAGCTGGTCA TGGGGCTTGG 120  
 TATAAGTTC CTATTTCCAC CCTGATACTT CCAATTCCTG GAACCCAGC CCACTCCNCC 180  
 ATCCCTCCTC CCTATCAAAC TAGTATAATG ATTTTGAATC GGTACAGTGT GTTTAACTGT 240  
 AACTAAGTTC GACAGACTAT TATTATCTTT GTAATAAATT AACCTAGCAA TAAAAATTAT 300  
 TCTGTNTAAA 310

SEQ ID NO:2647

LENGTH:308

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03084

SEQUENCE DESCRIPTION:

GATCTATTAA GCTTGANACA TTANGTNTCA TCACGCACTG AAGACAGGAA GCAGTTCCT 60  
 GAGTCAGCTG GTTCCCAAGC TCGCACAGAA GGTGATAAGT TACTATCAA TGCCAGTNAG 120  
 AATCTNCTTA TAGAATAACC TGGGCCCAAG TNATTTTNGT ACAAACCTTG CCCTTCTTTG 180  
 GTTTAATTTN CTATGTGCTT TTAGGTGTGA ATCCAGATAT GCGGTCTTAA TTCCTTTGGA 240  
 AATACACAGT TCGTTTAGTT ACTGTACACT CTGTTTGTTC AATAAACTGC ATATCANCTT 300  
 CCNACAAA 308

SEQ ID NO:2648

LENGTH:302

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03085

SEQUENCE DESCRIPTION:

GATCAGCAGC CCCTGAGCGG AGAAGAGGAG CTAGAGCCTG AGGCCAGTGA TGGTTCAGGC 60

TCCTGGGAAG ATGCAGCTTT GCTGACGGAG GCCAACCTGC CTGCTCCTGC TCCTGCTTCT 120  
 GCTTCTGCCC CTGTCCTAGA GACTCTGGGC AGCTCTGAAC CTGCTGGGGG TGCTCTCCGA 180  
 CAGCGCCCCA CCTGCTCTAG TTCCTGAAGA AAAGGGGCAG ACTCCTCACA TTCCAGCACT 240  
 TTCCACCTG ACTCCTCTCC CCTCGTTTTT CCTTCAATAA ACTATTTTGT GTCAGCTTCA 300  
 AA 302

SEQ ID NO:2649

LENGTH:302

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03086

SEQUENCE DESCRIPTION:

GATCAGCGAG CTACCANGAC CAGAGACCAA CTCAGCTAC AGCAGAAGNA TTTTCCCAAG 60  
 CCTGCTGACC ACAGTCACAT CACCCATCAG CACATGGAAG GCCCCTGGTA TGGACACTGA 120  
 AAGGAAGGGC TGGTCCTGCC CCTTTGAGGG GGTGCAAACA TGAAGGGAC CTAAGAGCCA 180  
 GAGGCTGTGT AGAGGCTCCT GCTCCACCTG CCAGTCTCGT AAGANATGGG GTTGCTGCAG 240  
 TGTGGAGTA GGGGCAGAGG GAGGGAGCCA AGGTCACTCC AATAAAACAA GTCATGGCA 300  
 AA 302

SEQ ID NO:2650

LENGTH:303

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03087

SEQUENCE DESCRIPTION:

GATCCCAGCT GATGTAGACC CTCTCACCAT TACTTCATCC CTGTNATCTG ATGGGGTCCT 60  
 CACTGTGAAT GGACCAAGGA AACAGGTCTN TGGCCCTGAG CGCACCATTG CCATCACCCG 120  
 TGAAGAGAAG CCTGCTGTCA CCGCAGCCCC CAAGAAATAG ATGCCCTTTC TTGAATTGCA 180  
 TTTTAAAAA CAAGAAAGTT TCCCCACCAG TGAATGAAAG TTTTGTGACT AGTGCTGAAG 240  
 CTTATTAATG CTAAGGGCAG GCCCAAATTA TCAAGCTAAT AAANTATCAT TCAGCAACAG 300  
 AAA 303

SEQ ID NO:2651

LENGTH:296

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03088

SEQUENCE DESCRIPTION:

GATCTCAGCT GGAAGTTCTG TTTGGAGCCC ATTTCTGTNA GACCCTGTAT TTCAAATNTG 60  
 CAGCTGAAAG GTGCTTGATC CTCTAATTC ACCCCANAGT TGGAGTTCTG CTCAAGGAAC 120  
 GTGTGTAATG TGTACATCTG TGTCCATGTG TGACCATGTG TCTGTNAGGC AGGGAACATG 180  
 TATTCTCTGC ATGCATGTAT GTAGGTGCCT GGGGAGTGTG TGTGGGTCCT TGGCTCTTGG 240  
 CCTTTCCCTT TGCAGGGGTT GTGCAGGTGT GAATAAAGAG AATAAGGAAG TTCAAA 296

SEQ ID NO:2652

LENGTH:291

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03089

SEQUENCE DESCRIPTION:

GATCTNACGG CCAGGCCTCT NTCCTGCTGC TGTTTTTAAT TTTCCCAGGT AGTGGGAGAG 60  
 AGGAAAGGAG GGAAGGCAAG ATTCTTTCCC CCTCCCTGCT GAAGCATGTG GTACAGAGGC 120  
 AAGAGCAGAG CCTGAGAAGC GTCAGGTCCC ACTTCTGCCA TGCAGCTACT ATGAGCCCTC 180  
 GGGGCCTCCT CCTGGGCCTC AGCTTGCCCA GATACATACC TAAATATATA TATATATATA 240  
 TGAGGGAGAA CGTNTCACCC AGNTTTNATC ATGCTGGAAA GAGTGTATGT N 291

SEQ ID NO:2653

LENGTH:290

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03090

SEQUENCE DESCRIPTION:

GATCTAAAGG GTGTAAAAAT ATTGATACTT CAATATTTCA CTTGCTGCCA GGAAAAACAA 60  
 AATTCTCAAT CTTTTGTAAA TGGGAGGAGG ACTTTTGCAT ACATTTTAC TCTTTAAATA 120  
 ACGACAACGA CACTTATACT GTCATAATAA CAATNATGTA TTTCTTTGTG GTTTTAATTT 180  
 TTTTGTAAAT TTTACATAAA ACAGTTATTT TCTATTTTNA CGCAGATAAA TATTGTGCA 240  
 TAAATGTAA AAATAGTAAA ATGAGAAAAA TAAACTATT ATACAGTAAA 290

SEQ ID NO:2654

LENGTH:287

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03091

SEQUENCE DESCRIPTION:

GATCTGTCTT CAGCTCTGGA CCCAATTCCC CTTACTTCAT TTTGGCAAAC ACTAAGTCAA 60  
 ATAGTAAAAT GCCTGTCACT ACATAGAACC TATTACCTGG GGCAAATACG AACAGATTGA 120  
 GTTCTCTTCA TCTTGTGTAA ATATGATGAA ACAGAGACCT GGTAAGTTGG TGACACTGTT 180  
 AAACCCTTTT NGGGATAAAG CCAAATGTAA ATGGAAACAT TAAACAGATA ANTTGTGGTG 240  
 TTGAGACTTT TCTGAATTGA GAAAAATAAA TGTAATTTTG GAAGAAA 287

SEQ ID NO:2655

LENGTH:287

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03092

SEQUENCE DESCRIPTION:

GATCTGACCG GCTTCAAGCT CAAGCCCTAC GTGAGCTACC TCGCCCCTNA NGAGCGAGGA 60  
 GACGCCCCCTG ACGGCCGCGC ACTCTTTCAG CGAANCNGTG GCGCCTGCCA TCGAAAAGNA 120  
 CTTCAGGAC GGTACCTTCG ACCCTGACAA CCTGGAAAAG TACGGCTTCG AGCCACACA 180  
 GGAGGGAAAG CTCTCCAGC TCTACCCAG GAACTTCCTG CGCTANTGGG CGGGGGAGGG 240



GCGGCCTGCC CTCATCTCAT TTCTATTAAA CGNCTTTGCC AGCTAAA

287

SEQ ID NO:2656

LENGTH:341

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03094

SEQUENCE DESCRIPTION:

GATCGTGGAG GAGGGACAAC GCTGCCACCG NTTGCGNCTGC AACACGTGCC CCTACGTGCA 60  
 CAACATCACC CGCAAGGTAA CAAATCGGAA GTACCCAAAA CTGAAAGAAG TGGATGATGT 120  
 GCTTGGTGGG GCAGCTGCCT GGGAGANTGT TGACTCTACT GCAGAGTCGT GTCCCAAATG 180  
 CGAACATCCT CGTGCTTACT TCATGCAGCT TCAGACCCGC TCTGCAGATG AGCCGATGAC 240  
 CACCTTCTAC AAGTGCTGCA ATGCTCAGTG TGGACACCGC TGGNGGGATT NGGGNCAGGT 300  
 NTGGCCCAGC TGCCCTNGTG TGTGCTTGCC TTGTNCCTCN N 341

SEQ ID NO:2657

LENGTH:279

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03095

SEQUENCE DESCRIPTION:

GATCCACAAG GTTGTCTGCT AAACCTGCTC CTCCAAAGCC ACAGCCCAAG CCTAAAAAGG 60  
 CCCCTGCAAA GAAGGGAGAG AAGATACCCA AAGGGAAAAA GGGAAAAGCT GATGCTGGCA 120  
 AGGAGGGGAA TAACCTGCA GAAAATGGAG ATGCCAAAAC AGACCAGGCA CAGAAAGCTG 180  
 AAGGTGCTGG AGTTGCCAAG TGAAGTGTGT GCATTTTGA TAACTGTGTA CTTCTGGTGA 240  
 CTGTACAATT TCAAATACTA TTTTATCA AGTTTAA 279

SEQ ID NO:2658

LENGTH:279

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03096

SEQUENCE DESCRIPTION:

GATCTGAATG TNCAGTTCTA GCCAAGGTAG ATTTTACTTT CAACTTTTTC ATCAGTATCA 60  
 CTTTCTGTGC TTAATATTTT GGTGTACCT TGTCTGTTTT CATTGTCTA AAATNCTGTA 120  
 GAGATGACTA AAATTTGACA TAATGGTGTA AATGGATTGT NAAGGTAAT TTCAGTTGAN 180  
 GATTAANGCA AGANGCCATT TTCCCATGA CTTTGGTTTT GTTACATTT TNCCCTTTCA 240  
 GTTAGTATAC ACTACACGTA CTGTAATAAA GTNCAATAN 279

SEQ ID NO:2659

LENGTH:274

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03097

SEQUENCE DESCRIPTION:

GATCTTTNCT AAAGCAAGGC CTTGAGCAAG TAGGTTGCTG TCTCTAAGCC CCCTTCCCTT 60  
 CCACTATNAG CTGCTGGCAG TGGGTTTNTA TTCGGTTCCC AGGGGTTGAG AGCATGCCTG 120  
 TGGGAGTCAT GGACATGAAG GGATGCTGCA ATGTAGGAAG GAGAGCTCTT TGTGAATGTA 180  
 AGGTGTTGCT AAATATGTTA TTGTGGAAAG ATGAATGCAA TAGTAGGACT GCTGACATTT 240  
 TGCAGAAAAT ACATTTTATT TAAAATCTCC TAAA 274

SEQ ID NO:2660

LENGTH:259

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03098

SEQUENCE DESCRIPTION:

GATCTGCCTG CNTTGGCCTC CCAAGGTGCT GGGATTACAG GTGTGAGCCA CCACCCCAG 60  
 CCGCCTCTAT GCTTTTGGNT TCTTTGATAT ATCTAACTT AAGGTCAGAA CAGAAATTCA 120  
 TGTGCTGAAC AGAATGGATT CTTTTGCAG TACCAATCCA ATTGAATCCT CTTTTATTT 180  
 TCCTGCGTCC TTACCACTCA CTTTGATAGT GCTAACTAAC CTACACTATG GGGGTTATTC 240  
 ATGANTTAAG TATGATAAA 259

SEQ ID NO:2661

LENGTH:272

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03099

SEQUENCE DESCRIPTION:

GATCTGTGTT TGTAATACTG GTTGTAATTA ATTTTTTTAA TTCATGAACN AGCGGAAAAT 60  
 TTATTAAATT AACTATTAAC CACATTCACC TTGTAAATGA CTGTATAAAA CTNGTNGACA 120  
 ATGCACTGAC TTTAGAAAGA TGTTAATGTG CATAANTNGA GTGTAAATAA NATAGTGTG 180  
 ATGTACTGAN ATATGACCTG TATAANNNGT ATTAGTAATT GTNTATGGGG TGTACCTGTT 240  
 TATCTGTAAC TGTNATCCAA ACAAATNAAA TN 272

SEQ ID NO:2662

LENGTH:270

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03100

SEQUENCE DESCRIPTION:

GATCTATCTG GNNTGTGCNT TAGACTNGAT GAGAAGGTGT GAACTCTGCA GAAAGTCTCT 60  
 CCTTCATCAC TGAATTCAGT CACTTGGAGA TGACAACTTC AAATGCTAAC CCGATGACCC 120  
 CAGAAAACCG TGTGAGATTC GTACCGAAGA ACCTTGTGGA ATCCCTTTNC TTAGGCCCAA 180  
 CCTGGTCGAT AGCTCGAGAA AGANTNTTTN CCAAGGAAAT GTCTCGGATA TGGGTACTGT 240  
 ATTTGAAAGC TGTTAGCTTT GTCAACACGN 270

SEQ ID NO:2663

LENGTH:268

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03101

SEQUENCE DESCRIPTION:

GATCATGAAT CAAGCCCTGG AACAGATGAA GACAAAAGCG GATGAGTGAG TTATATAAAC 60  
 TTACTTCCAT TCTGTTTCGG ATTTAAGTT TGAGAGACTT GCTAATNAAT CTCCTTTATG 120  
 TTGTTTTCCT TTTCATTGTT TTTGGATTGT TTTATGTTG TCCTTTTTTT TCTTAATGTG 180  
 GATTTCATTG AGTTGATTTT TTGATAATCT GCAATCTGGA TAATTTGTAC TGCTAAAGTT 240  
 TTAATAAACT CGACATGAGA AAAACAAA 268

SEQ ID NO:2664

LENGTH:267

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03102

SEQUENCE DESCRIPTION:

GATCAAAATA GTAATAAATC AACAAATAAT TTTTGATTGA CTGGTGGAAT TAGATTACT 60  
 AAATAAAAAT GGCTTAAATT TTGACTGTAC TAACTATAAA TGTAATGAAT TATAATAATT 120  
 ATAAATGGTA TAAATGCATT CTACAATGTG ATTATTTTCT GTATTTTAGT ATATAGTATA 180  
 AAATGGAATT ATTGGGTAA AGTACTTTTA TTACATTCT TAATCCATTG TTTTACCTA 240  
 ATAAAATTC CTCCTCTATA TTCCAAA 267

SEQ ID NO:2665

LENGTH:266

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03103

SEQUENCE DESCRIPTION:

GATCCGAATC TGTGCCAGC GCTAAAGGCT CAGTGTTAGC ATGGCTNNN CTGNCCGGTG 60  
 TGCCATATTC TTGTTGGAGA TGAACCGTAG CACCAGAGCC CATTCTCCT TGTCAGTCTT 120  
 GGCCCAAAGA TGTCACCATT CCTAGTTATT TGTCACCACA TAATTGGTGT TGATTGGAAA 180  
 CTTTTCTGA GATGGGACAG AACTGCTGGG TTGTCTTTT CCATGTAACT TAAGCATAGT 240  
 AATATAAATA AAGTAATAGT TGGAAA 266

SEQ ID NO:2666

LENGTH:265

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03104

SEQUENCE DESCRIPTION:

GATCCTCCCT GTCATGCCAC ATTTCACTGA TTGGAATGTG GAAATGGAAA AGGAATTTAG 60  
 GATGTGCATT TTCACCTGAG GTTTCCTGTC ATCCCTGCAG TGCCAAAGCC CCACCTTCAG 120  
 GGACCACCTG GAATGTGTGA GGGGCTGACA GCACAGTAAC GTGCATACAT ATCTGCAGGG 180  
 CTGGAATGGA AGCTTTAAAG GTGGTAGTGA TTTTNATTTT GGAAGAATCA TGTTACCTTT 240  
 TTGTTAAATA AAATTTGTAC TCAAA 265

SEQ ID NO:2667

LENGTH:303

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03105

SEQUENCE DESCRIPTION:

GATCCAGTGT CCATGGAAAC ATTCCACAT GCCGTGACTC TGGACTATAT CANTATTGG 60  
 AAAGCAGGGT TCCTCTGCCT GCAAACAAGC CCACGTGGAC CAGTCTGAAT GTNTTTCCTT 120  
 TNCACCTATG TTTTAAAGTA GTCAAACTTC AAGAAACAAT CTAAACAAGT TTCTGTTGCA 180  
 TATGTGTTTG TAAACTTGTA TTTGTATTGA GTAGGCTTCT ATATTGCATT TANGTTGTTT 240  
 TTGTAACCTC TGATTCTCCC TTNCGGATA CTATTGATGA ATAAAGGANT TAANGTGGAT 300  
 AAA 303

SEQ ID NO:2668

LENGTH:263

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03106

SEQUENCE DESCRIPTION:

GATCAACCAA GGCAGATGTG ACAGCAAGGG CCACGGACCC CATGGCAGGG GTGGCGTCTT 60  
 CATNAGGGAG GGGCCCAAAG CCCTTGTGGG CGGACCTCCC CTGAGCCTGT CTGAGGGGCC 120  
 AGCCCTTAGT GCATTCAGGC TAAGGCCCTT GGGCAGGGAT GCCACCNCTG CTCCTTCGGA 180  
 GGACGTGCCC TCACCCCTCA CTGGTCCACT GGCTTGAGAC TCACCCCGTC TGCCAGTAA 240  
 AAGCCTTCT GCAGCAGCTG AAA 263

SEQ ID NO:2669

LENGTH:258

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03108

SEQUENCE DESCRIPTION:

GATCTGGCCT AGGTCCCCC TTTNTNCTGT CCCCTGTNTT TAAGTCGGGA TTTTACAGA 60  
 GGGAGCTGTC TCCAGACAGC TCATCAGGAA CCAAGCAAAG GCCAGATAGC CTGACAGATA 120  
 GGCTAGTGGT ATTGTGTATA TGGGCGGGAC GTGTGTGTCA TTATNATTG AGTTATGCTG 180  
 TTGTTTAGGG GTAAATAACA GTAAATAATT AATAATAATA ATAATAATAN TAATAATAAN 240  
 GGNGCNGACG TTCTTAAA 258

SEQ ID NO:2670

LENGTH:257

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03109

SEQUENCE DESCRIPTION:

GATCCACCCG CCTCGGCCTC CCAAAGTGCT GGGATTACAG GCATGAGCCA TCACACCTGG 60  
 TCAACTTTCT TTTGATTAGT GTTTTGTGG TATATCTTTT TCCATCATGT TACTTTAAAT 120

2153480

ATATCTATAT TATTGTATTT AAAATGTGTT TCTTACAGAC TGCATGTAGT TGGGTATAAT 180  
TTTATCCAG TCTAAAAATA TCTGTCTTTT AATTGGNGTT TAGACAATTT ATATTTAATA 240  
AAATGGNNGA ATTTAAA 257

SEQ ID NO:2671

LENGTH:257

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03110

SEQUENCE DESCRIPTION:

GATCAGATGT NGCTCAGAAA CTTTCATTGT TTACCTAATA ATTTAATATC ACTAGTTTCC 60  
TAGTGGGTCA AGCAGATGCA AAANCCAGCT TATTCCTCC TATGTNCTCT CAAGCTTATN 120  
GCTTATTNA AAGTAAAANC CTGAAAAGG AAAATATTAG GTTGGTGCAA ACGTAATTNC 180  
GGTTTTGCCA TTGTNGAAAT TTGCCGTTTT ATATTGGAGT ACATTCTTAA NTAAATGTGG 240  
TTATGTTATA CATCAAA 257

SEQ ID NO:2672

LENGTH:256

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03111

SEQUENCE DESCRIPTION:

GATCAATTAC TGTCTCACT TAGAACAAAG CCTGAGTCCG AGAATATTTA TATTTTACCA 60  
ATATATGCCT GTTACAAGAG AAGGAAATAT GAGTTATTTA AGTTAACTT TTTTATGTGA 120  
ATTCAGAGTT TATTTATCGA GGGAAATATG TACAAAGAAG CTTCAAATGG AATATTTACC 180  
GACATTCCTT ATACATGACA GACACTNGGC TACATGGGAA GATGATGTTA ATAATAANNT 240  
GATTTTAAAN TGAAAA 256

SEQ ID NO:2673

LENGTH:256

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03112

SEQUENCE DESCRIPTION:

GATCTGGAGA GGATTAGGGA CGGCTCTTGT GGGCACATTT TNNCTCTAGT TTCATGGGTG 60  
GAGATGGCAT CTCNGTGGT CTGCAGCATG CAAGTAAAGA CACCAGGTGG CACCATTNAT 120  
NAGCTTTCAA TCCCATGGAG AGGTCCCATC ATGTAAC TNC CAAGAGGTG AAGGAACCAA 180  
CTACCTCTTG CATATTGTNG CTAATGGTTC TNGCCTTCTC CTTCCAGACT TGGGAAATAA 240  
NTTTNAAAAT NGTAAA 256

SEQ ID NO:2674

LENGTH:433

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03115

00960

## SEQUENCE DESCRIPTION:

GATCTACCTT GGTGATTGG ACCCTGGTTG CTTTGTGTCT AGTTTCTAG ACCCTTCATC 60  
 TCTTACTTGA TAGACTTACT AATAAAATGT GAAGACTAGA CCAATTGTCA TGCTTGACAC 120  
 AACTGCTGTG GCTGGTTGGT GCTTTGTTTA TGGTAGTAGT TTTNCTGTAA CACAGAATAT 180  
 AGGATAAGAA ATAAGANTAA AGTACCTTGA CTTTGTTTAC AGCATGTAGG GTGATGAGCA 240  
 CTCACAATTG TNGACTAAAA TGCTGCTTTT AAAACATAGG AAAGTAGAAT GGTGAGTGC 300  
 AAATCCATAG CACAAGGTAA ATTGAGCTNG TTANGGCAAT CAGGTAAAAT AGTCATGNTT 360  
 CTNTGTNATG TAANCCCGTA AATGANTGTT CCTGGTTTCN CGGTGGTTTT TTNANGGNC 420  
 NCNTTNANNT TTN 433

SEQ ID NO:2675

LENGTH:250

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03116

## SEQUENCE DESCRIPTION:

GATCAGAAGA AAGAAAGACA ACTTTCCTCT GCGCGGAACA CTCACACGGA AGGGCTGGCC 60  
 GCCTCCCTGA GCCGGCTGGG AGTNGACGAC AGGACCTACC TCCCCAGAGC AAGGGCCTGG 120  
 GGCTTCCCGC CAAAGCTGCC GCGGAACCCC GCTAGTGCGA CCACCCTCCC TCCGTCCGTA 180  
 TGTCCTGCTT TCCAGCTGAA CCCAAACTAC AAGTGGGTTT AAAAAAATAA ACACCACCAC 240  
 CAAAAACAAA 250

SEQ ID NO:2676

LENGTH:247

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03117

## SEQUENCE DESCRIPTION:

GATCTGAAAA AGATGGTCAT TCCGGACTCC TGACGCCGCC AGTCCCGCGG TGAGACGTGA 60  
 GCNCCATTGG GTCCAGTGGC CTCTNTTTC GTGGCAACCT AGTAACCATT AATTTTNAAT 120  
 TAAAGGAGAC AAAAAGCTCG ATGACAGCTC CAGGTCTGCT GAAGATGTCA AGAATCTGTA 180  
 TTAATATACA GCAAGAGAGC ATAATTGTNT GTCCATCTTC CAGAGCAGCG AAAAATGGAG 240  
 GGATAAN 247

SEQ ID NO:2677

LENGTH:245

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03118

## SEQUENCE DESCRIPTION:

GATCAAAACC ATCCTGGCCA AAATGGTGAA CCCTGTCTCT ACTAAAAATA CAAAAATTAG 60  
 CTGGGCATAG TGGCACGCGC CTGCAGTCCC AGCTACTCAG GAAGCTGAGG CAGGAGAATC 120  
 GCTTGAACCC AGGAGGCAGA GGTGCTGTG AGCCGAGATT GCACCACTGC ACTCCAGCCT 180  
 GGGCAACAGA GTGAGACTCC ATCTGAAAAA AAAAAANTNC AGGNTGCAA GNTTGGCGTA 240  
 ATCAN 245

SEQ ID NO:2678

LENGTH:347

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03119

SEQUENCE DESCRIPTION:

```
GATCAGCAGG GCTACCATCT CACTCTTCTG TAATTTTACA ACATTCTAAA GGAAGTAAAT 60
CACCAGATTT GCTGATGTAT CAGGGTCCAC CAGACACTGC AGAAATAATA AAAACATTAC 120
CTCAGNAATA CAGNAGGAAA CTTGTGTCTC AAGAAGAAAT GGAATTTATC CAACGTGGAG 180
GTCCTGAATA ACCATGGTGG CTGCTGTTTG TCATCAGACA NTAGAATTGT CTTTACAATA 240
AAGGNCTTCC AAAATGGCAG ATGNGAAACT GTATATTTAA CACCTTTAGT AANTANTATG 300
GANNAAGTGN NATNTAGGNN ATTTAGGTGG TCCCTNGGAT TNCCGNN 347
```

SEQ ID NO:2679

LENGTH:242

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03120

SEQUENCE DESCRIPTION:

```
GATCTGGCCT GGAGAGGCCA TCCTATACCC CTTATTAGAG CCATGACAGC CTACAGAGTG 60
AGGTGAGGTG TCCCACCTT CCCAGATGGT TCCTTTCTGC CCCTTCCTGG AAGGAAAGGT 120
GAGGCTGCCA ATAGCCTCCT GGCACCAGCC AGACCTCACC CTTGACCAAC CTCTCGGGGC 180
TGGGGGTTC AATCCTGGGGC ACTGTGGCCT GGTTTTGCTT TGAAACCAAG AAAGAGCAAA 240
GN 242
```

SEQ ID NO:2680

LENGTH:411

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03121

SEQUENCE DESCRIPTION:

```
GATCCCCAAC AATGTGAAAA CGGCTGTCTG TNACATCCCA CCTCGGGGGC TAAAAATNTC 60
CGNCACCTTC ATTGGCAACA GCACGGCCAT CCAGGAGCTG TTCAAGCGCA TCTCCGAGCA 120
GTTACGGGCC ATGTTCCGGC GNAAGGCCTT CCTGCACTGG TACACGGGCG AGGGNATGGA 180
CGAGATGGAG TTCACCGAGG CCGAGAGCAN CATGAATGAC CTGGTGTCCG AGTACCAGCA 240
GTACCAGGAT GCCACAGCCG AGNAGGAGGG CGAGTTCGAG GAGGAGGCTT AGGAGGAGGT 300
TGGCCTAGAG CTTTCAANTC ACTGGGGAAA AGCAGGGGAA GCAGTGTNGA ACTCTTTTAT 360
TCACTTCNA GNCCTGGTCN NGTNGGNCN GTTCCCACTG TGTGCAATTG N 411
```

SEQ ID NO:2681

LENGTH:240

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03122

## SEQUENCE DESCRIPTION:

GATCTGCGCA CGGTGCACAG CCCACCAGAG CACTACAGCC TTTTATTGAG TGGGGTGGG 60  
 CAAGTGCTGG GCTGTGGTCG TGCCCTGACA GCATCTTCCC CAGGCAGCGG CTCTGTGGAG 120  
 GAGGCCATAC TCCCTAGTT GGCCACTGGG GCCACCACCC TGACCACCAC TGTGCCCTC 180  
 ATTGTTACTA CCTTGTGAGA TAAAACTGA TTAAACCTTT GTGGCTGTGG TTGGCTGAAA 240

SEQ ID NO:2682

LENGTH:237

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03123

## SEQUENCE DESCRIPTION:

GATCACCTGG GGACAGAGGT GAAAGGCCTG CTGGGCCTGC TGGAGGAGCT GGCCTGGAAC 60  
 CTGCCCCCGG GACCCTTCAG CCCCCTCCC GACCTTNTCG GAGATGGCTT CTNAGCCCTG 120  
 GAGCTGGAGC CCAGCAGTTG GAGGTGGTGC ACCTGCCAGG CAGCGCCAC AGAACCAGCC 180  
 CTGTCTCTC GACTTCCTTC CTTAGCTTCA TGTGAAATAA AAGCTATTCT GGTCAAA 237

SEQ ID NO:2683

LENGTH:236

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03124

## SEQUENCE DESCRIPTION:

GATCGGCATG GTCATTCACC AAGTGAAGC CAAACCCTCT GTGTATTTCA TCAAGTTTGA 60  
 TGATGATTC CATATCTATG TCTACGATTT GGTGAAAAAG TCCTAACTGT TAGGGTAAAA 120  
 TTTGGACAT GTGTGAAAC AAATGTATAA TTTGTAGACA TGCAAAAAAT GTTGCCTTTC 180  
 AGTGTATTGA AAGCTTATGG AATCCCTGAT AACTAAACAT CTTTGCCAGC ATTAAA 236

SEQ ID NO:2684

LENGTH:236

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03125

## SEQUENCE DESCRIPTION:

GATCACACAT ATCCTTCCTG AGANGAGCAG TGAATAAAT GGAATATCTT TTTAAGANCA 60  
 GCTCCTCTTT AACAAAAAN CTAAAAGAC AAATGTGAGA TGGGCTTAGA GTTAGTNCTC 120  
 TGGGAACTTG AAAGACATTT ATGCCATATT ATTTATNCAC GTGTTGTNC CTGGTGGGCA 180  
 AGATGCCATC TGAGGCTTCA GATGAGAAAT TGGGGTAANN TGGAAATTT NCACTN 236

SEQ ID NO:2685

LENGTH:234

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03126

## SEQUENCE DESCRIPTION:



2153480

GATCAATCCC TCAAGATTTT GAAATCCTGA AGAAATTGAG AAGTATGTTG CTGAAATTGA 60  
 AAANGAAAAA GAAGAAAACG AAAAGAAGAA AAAAAAGAAA GCATCATGAT GAATAAAATG 120  
 TCTTTGCTTG TAATTTTAA ATTCATATCA ATCATGGATG AGTCTCGATG TGTAGGCCTT 180  
 TCCATTCCAT TTATTCACAC TGAGTGCCT ACAATAAACT TCCGTATTTT TAAA 234

SEQ ID NO:2686

LENGTH:230

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03127

SEQUENCE DESCRIPTION:

GATCTAGGCC TGGCAAGANC TCTGGCCCCA AGGCCTCCTC TTCCCAGGGG CTGCCAAGTC 60  
 CTGGCCCTGG CCTTGGCATA TNACCCCGNA CTGTGGGGCC AGTCACCACT AGCCTGGCTC 120  
 AAATATTCCC CAGGGAGACT NCTGTGTGCT GCCCGGCTNC CTGCTGGCTC TCCCCAGNC 180  
 CCACATCCCN TCTNGAAGAG AATGTAAAAT AAACCTGGAC ACAAGGGAAA 230

SEQ ID NO:2687

LENGTH:232

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03128

SEQUENCE DESCRIPTION:

GATCCATGAG GTCCTAGCCC CTGGCTGCCT GGATGCNTTC CCCCTGCTCT CAGCATATNT 60  
 GGGGCGCCTC ANTGCCCGGC CCAAGCTCAA GGCCTTCCTG GCCTCCCCTG AGTACGTNAA 120  
 CCTCCCCATC AATGGCAACG GGAAACAGTG AGGGTTGGGG GGACTCTNAG CGGGAGGCAG 180  
 AGTTTGCTTT CCTTCTCCA GGACCANTAA AATTTNTAAG NGAGNTACTA AA 232

SEQ ID NO:2688

LENGTH:229

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03129

SEQUENCE DESCRIPTION:

GATCACAAAA TGTNATAAAA CTTTAAATGT ATAAACTTT ATCAAATAAA GTTTTATTTT 60  
 CCCCTTTAAA ATGTATTNT TTAGAGGCAT TACTTTTTTA AAAATATTGG TCAATTNCNG 120  
 ACATAAGATG TGAGGTTTAC AGTTGTATTC CAGTATTCAA GATAGATTCC TGATTTTCCA 180  
 ATTAGGAAAA GTAAATCCA AAATGTTAGC AAAACAAAGT GCAATATTN 229

SEQ ID NO:2689

LENGTH:223

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03131

SEQUENCE DESCRIPTION:

GATCCCATGC CCAGGTGTCC AGCAGACCTC AAGGCAGAAG GGTACCTAA CCCAGGAGTC 60

00964

CACAGACTGA TGTGACCTCA GGTTCACACA TCANTGGCCA CAGGGCAGGG CCCACCTGGT 120  
 AGAAGTTTTT TGGATATGGC CAGGGTGGGT GTNTGGCTAA NTGGGCCTGA ACAGAGGGAA 180  
 CCTAGGGCCC TTGGCCAATG TGATTAAAGC TGCCATCTTG AAA 223

SEQ ID NO:2690

LENGTH:222

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03132

SEQUENCE DESCRIPTION:

GATCCGCCCT GGAGAAGTGA GTGGCTGAGA CCCGGGTGGG GCCCTCCTAA CCTTGGNTCT 60  
 GGGGGCTTCC NTTCTGGGTC TTGTCCGGGA TATGGCCTTC CTGAAGGTCT TACCTCCCCC 120  
 AGCCGCCCTG CACTTGACCA CCAAAGCAAT CTCTAAGCTT ATAAAGGAGA AACATGTATA 180  
 TATGGGGTTT TTTGGAGTAA AGGAAAATTC TAAGATATTA AA 222

SEQ ID NO:2691

LENGTH:222

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03133

SEQUENCE DESCRIPTION:

GATCCACCTG CCTTGGCCTT CCAAGGTGTT GGAATTACAG GCGTGAGCAA CCGCGCCTGG 60  
 TCTATATGTN ATTTCAAATN AGGTGGCCTT ATAAATATAA GCAGATGGGT TTCTGGGCAA 120  
 AATCAAATNA TTTCTGTCTC TATTTNNTTG AGTACCAATT GTAAANCTG AAATTAGGTT 180  
 GAGGAAAGTN CTTTAGAAAT AATAAAGATG TACAANTACA AA 222

SEQ ID NO:2692

LENGTH:220

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03134

SEQUENCE DESCRIPTION:

GATCTGCCCA CCTCAGCCTC TTGAGTAGCT GGGACTACAG GTGCATACCA CCACACCTGG 60  
 CTAATTTTTT AATTTNATT TTTATTAAAG ACAAGGTCTC ACTATGCTGC CCAGGTTGGC 120  
 CTCCCAAAGT GTTGGGATTA CAAGTGTGAG TCACCGTGCC TGGTCCCATG TACTTGANGT 180  
 CATCACTANC AAAATGTATA GATATTGTAT AATGGCAACN 220

SEQ ID NO:2693

LENGTH:219

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03135

SEQUENCE DESCRIPTION:

GATCTTTAAT AAAAATTGA TATGAAAAGC ACAATGTGCA GANGTTATGG AAAACCTATA 60  
 GAGGATTACA ACAGGTAAAC GTTAAAGAGA ATACATTGCT GACTTATAGT GATGTGGCTA 120

AGANGTACAT GCTTTGTTGT AAAATTNCTT GAAAGCCCAT TGAAAGATGT ATCTGTTTAT 180  
TTACAGTCTT TGAAGTAAAA GTTACCAATG TTTGCCAAA 219

SEQ ID NO:2694

LENGTH:219

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03136

SEQUENCE DESCRIPTION:

GATCTNGCCC CTGCGCTCTN GCCTGGGTGA CAGAGCAAGA NTCTATCTNA AAAATGTTTT 60  
TAAAAAATAC TTCCTAGGGA AACACACATT TNGCCCTATT TGGAACTTG AAAAGTGAGC 120  
CCTCCTCTGC CCATGGGCCG TGCTGCTCAG CCTGCCATAC TCGCTTGCTT TGCTGTTGG 180  
NATTGCTC CAGAATAAAG GTCCTTTTG TTGTTGAAA 219

SEQ ID NO:2695

LENGTH:224

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03138

SEQUENCE DESCRIPTION:

GATCCTAATC CCTCCTCTC CCATTCACCC TGTGTAACAG NACCCCAAGG ACCTGCCTCC 60  
CCGGAAGTGC CTTAACCTAG AGGGTCGGGG AGGAGGTTGT GTCAGTACT CAGGCTGCTC 120  
CTTCTCTAGT TTCCCTCTC ATCTGACCTT AGTTTGCTGC CATNAGTCTA GTGGTTTCGT 180  
GGTTTCGTCT ATTTATTAAA AAATATTGA GANCAAAAAA CAAA 224

SEQ ID NO:2696

LENGTH:216

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03139

SEQUENCE DESCRIPTION:

GATCAAAGTC TTAAGTGTGT TTGCAGCTCA AAAATAAAGA TGTATTAAGG AGGGGAAAAC 60  
CTGGTCTAAG TGCAAGGCAC ACTTACAGCG AGTTTACTT TCGGTTGTAT TTTCTTTGTA 120  
TATNATAAAC ATTTATTAA CTTGTTGCCG TTTGAAGTAA AAAATTCCA AAATGTATGC 180  
TCAACAATAA TCATTAAAT GTTTCAGCG TACAAA 216

SEQ ID NO:2697

LENGTH:216

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03140

SEQUENCE DESCRIPTION:

GATCAAATTG TGTTAGTAT CACTATCTTC TCTCCTCGTT TCTCTTTAC TCCTCATCCT 60  
CCCAGAATCT ACCAGTTTAT GGTAGAAAGA TGGGAACCTT ATTTGAATGT GTTTTTTTT 120  
TCCATGATGT CCAATTTTGT NGTGGGAAAG GATTGGATA AAANTTTNGT TAAATTTNG 180

GTAGNTTTTN ATCTNTACAA NTTAANTAA AATNAN

216

SEQ ID NO:2698

LENGTH:216

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03141

SEQUENCE DESCRIPTION:

GATCTCAAAA GTATTCCTCA GGGTAGTCTC CATTCTGTC ATTTTNCCTC CTATTCATGA 60  
GACGGAAAAA TTATGACCAT GGTACAGAGT TGTATCAAGG AAATGAAGAA CTAGAACATT 120  
GAATTGAAAG GTTTTGAAG GGTTCACAAT TTCTTTTCAT TTNCTATTAA TGTCTTCTTT 180  
TAAATNCTCT TAAGAATAAA ACTTTTTTCT AATAAA 216

SEQ ID NO:2699

LENGTH:211

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03142

SEQUENCE DESCRIPTION:

GATCAGCAAA CAGGAATACG ATGAAGCCGG GCCTTCCATT GTCCACCGCA AATNCTTCTA 60  
AAACACTTTC CTGCTCCTCT CTGTCTCTAG CACACAACTG TGAATGTCCT GTGGAATTAT 120  
GCCTTCAGTT CTTTTCCAAA TCATTCCTAG CCAAAGCTCT GACTCGTTAC CTATGTGTTT 180  
TTTAATAAAT CTGAAATAGG CTA CTACTGGTAA A 211

SEQ ID NO:2700

LENGTH:236

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03145

SEQUENCE DESCRIPTION:

GATCACGAAC ANTAGCTTGC GCTCTACTCT GTAGTTATGT GGATTGCCGA GCAATNACCC 60  
TTTTCAATNT CTTATTTCTG TGTTACTGAG GACCCTAATC ACTTAGGGAT GTAATTTTAT 120  
AGTATAAACT TTCTGNACAG TTTTNCNTAT AGTCTAATAA GTAAAAAGTG TCCNNCAAAT 180  
TATGATAATT GCCTATGGTA CATGGATAAN TTAANGCACT GCACACGGTG TAAANN 236

SEQ ID NO:2701

LENGTH:206

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03146

SEQUENCE DESCRIPTION:

GATCCATTTT TNACACACAC TGCCAGAGAT ACTCTAGGCA TGTAAGCAC AAACATACAT 60  
ATAAAANCTG CGGGCTTCAA AAAATATAAG TAGGATGTCA TCTATACTGT CATACACTTT 120  
GTTTTTTATC ACTTACTTAA TGTTATATCT NGGATATTGT ATTACCCTGG GTATTAAAAA 180  
GAACTCCTTT CACATTTTAA AATAAA 206

SEQ ID NO:2702

LENGTH:206

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03147

SEQUENCE DESCRIPTION:

GATCTAAAAC TGGGGTTTGG GGGAGGGTTT CANCCTCTCC CCACTCCNCT TGCCCCACAC 60  
 CCTTTACTCC CCAGCCCAGA GAGACGCTGC TTTTACCAGG AAAGACTATT GAAAGATGTT 120  
 TTATATTATT TTNCTCTGAC CTTTCCATCC TTGAAAAAAT GGGGAAAAAA GAAGAAAAAA 180  
 GACAAAATCG ACCATAAAG ACCAAA 206

SEQ ID NO:2703

LENGTH:205

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03148

SEQUENCE DESCRIPTION:

GATCTTGTTA ATGCATTTTT GATGGGAAGA AAAGGTACAT GTTTACAAAG AGGTTTATG 60  
 AAAAGAATAA AAATTGACTT CTTGCTTGTA CATATAGGNG CAATACTATT ATATTATGTA 120  
 GTCCGTTAAC ACTACTTAAA AGTTTAGGGT TTTCTCTTGG TTGTAGAGTG GCCCAGAATT 180  
 GCATTCTGAA TGAATAAAGG TTAAA 205

SEQ ID NO:2704

LENGTH:203

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03149

SEQUENCE DESCRIPTION:

GATCCTGAGG CTTTGATGCT ATTTNTTAA TCCAGCTGGT CTGTGGAGAA GCCTGGGACA 60  
 GAAAGAAGCA GCCAGACTCC AGAATCCCCC ATTTAATAG CTATNNNATG CTATGTCCCC 120  
 GTCTTATTCC TGGCAACTTA CCTCTCAGCT CGTGCACTGT GACATTACAG CAAGAAGTAC 180  
 TAATATAAAT GACACAAANG AAA 203

SEQ ID NO:2705

LENGTH:203

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03150

SEQUENCE DESCRIPTION:

GATCTGAAAA AAATACGGTT GAAAGTGGTG CAGGTAATTA CAATGTGTAG GCAAACCAGA 60  
 AAACCATGGC TTAAACCAGC AGCTTTTGTN AGAAATNATT TCTCCAATGA NTGTAGAAAC 120  
 GTTTGCNGCT GAATTGTGAC CTTNCCATTT NACCTGCTTT TCCTGCAAAG TATATTNNC 180  
 AGACCCAGGC AGTGCTGCTC GCN 203

SEQ ID NO:2706

LENGTH:198

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03151

SEQUENCE DESCRIPTION:

GATCCAATGC TAAACTCCAA TGGTTCAGTG ACTGTGGTTG CTCTTCTTCA AGGCAGCTGA 60  
TACCTGTGCA TACTGCAGGC ATCTAAATTA GAAGACCTGC GAGTAAACT GAAGAAAGAA 120  
GGATATTCTA ATATTTNTNA TATNGTTGTT AATCATCAAG GNATCTNTTC TCGATTAAAA 180  
TNCACACATC TTANGAAA 198

SEQ ID NO:2707

LENGTH:201

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03152

SEQUENCE DESCRIPTION:

GATCCATAAT TCCTATTCAA TGAACATCAT TGTGGTGGC TGAATACATT TTGGAAGAGA 60  
GTTTTTCATC TTAGAGATTG GTGAACAAGT GTGAGGGTGT GAGAACTCA CAGAATACAA 120  
ATTTGCCTGT ATGTTTTGTG GGTTTTTTTT TTCCCCTTCA NGATGTTTNC TATTNCTAAN 180  
TTAANGTAAT TNCAAGGTAA A 201

SEQ ID NO:2708

LENGTH:196

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03153

SEQUENCE DESCRIPTION:

GATCTATTAG TTTAGTGTTT ATNAAAGAAT CAAATGTATA GAATTACCAA GCATTCGTGG 60  
GGAATNCTGT GTAGCAAATG TAAACTNAC CTGCTCGGAA GAAACGTAGG ANCGCTTCAA 120  
ACCCACTGTA ATGTTTGGTT TGANNATTATT TCCATTGCTT TNAGAGTGAN CTGCCTAAGN 180  
GTAGGCCCTTA TAATAN 196

SEQ ID NO:2709

LENGTH:193

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03154

SEQUENCE DESCRIPTION:

GATCTACAAG NATTTTCTTT TAGTAGTTAT ACAAAGANT ATTACATTTA TTGGTCTGTA 60  
CAGTGTAAATA AACAGCAAT AGGGACAACA ACAAAGAGAA TCTAAGAAAG ANGACTATGC 120  
CTAANTATAG GGAAGTTTA GAGAATCATT TTTAGACAGG ACACATTTTG CAGTAGTGAA 180  
TGTGGTAGGT TTN 193

SEQ ID NO:2710

LENGTH:193

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03155

SEQUENCE DESCRIPTION:

GATCAGTGTT GCAACATANT GNAAAAGATG GCTACTGTGC CTTGTGTTAC TTAATCATAC 60  
AGTAAGNTGA CCTGGAAATG AATGAACTA TTAATCCTAA GANTTACATT GTATAGCCCC 120  
ACAGATTAAAN TTTAATTAAT TANTTCAAAA CATGTTANCC GCNACTTTCA TGTACTATGG 180  
AAAAGTACAN GTN 193

SEQ ID NO:2711

LENGTH:192

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03156

SEQUENCE DESCRIPTION:

GATCTCGAAC CCTGTCTAGA AGGAATGTAT TTGTTGCTAA ATTCGTTAGC ACTGTTTACA 60  
GTTTTCCTCC ATGTTATTTA TGAATTTNAT ATTCCGTGAA TGTATATNGT CTTGTAATGT 120  
TGCATAATGT TCACTTTTAA TAGTGTGTCC TTTATNCTAA ACAGTAANGT GGTTTTATTN 180  
CTATCACACA AA 192

SEQ ID NO:2712

LENGTH:386

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03157

SEQUENCE DESCRIPTION:

GATCCAGAAT NGAGACTGGA CCTTCCAGAC CCTGGTAATG CTGGAAACAG TTCCTCGGAG 60  
TGGAGAGGTT TACACCTGCC AAGTGGAGCA TCCAAGCATG ATGAGCCCTC TNACGGTGCA 120  
ATGGAGTGCA CGGTCTGAAT CTGCACAGAG CAAGATGCTG AGTGGAGTCG GGGGCTTTGT 180  
GCTGGGCTTG CTCTTNCCTG GNACAGGGCT GTTCATCTAC TTCAGGANTC AGAAAGGNCA 240  
CTCTGGNCTT CAGCCANCAG GACTCTTTGN GCTGAAGTGC AGGTGNCCAC GATTCAAGGG 300  
ANGAACCTTC TTGNCCCANG NTTTTCAAGA TGGAAAAGCT TTCCCCAACT TTGGNTTCTT 360  
NTTNTTCCC ACCAAAGAAAN CTTNAN 386

SEQ ID NO:2713

LENGTH:189

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03159

SEQUENCE DESCRIPTION:

GATCTTCCGG AAAAATAAG CCCCTCCTTC ACCCCCGCAC ACCTGCATCC CTGCCGGAGT 60  
CNTGNTGAGG CACGAACCCT GCCTCCCTAG GCCGGACCTT GTGGACGACA GCCCCACCCA 120  
GTCTGTGCTC TCAGCCGCTG GCCGAAGGCC CAGCCTGCTC AGAATAAAGC ATGTCCTGCT 180  
GCCGGCAAA 189

SEQ ID NO:2714

LENGTH:189

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03160

SEQUENCE DESCRIPTION:

GATCCCATAG TTTTACATT TNCCTGTTTA TTTTGATTTT TTNCACTGCT TTATTTCTTA 60  
AAGTNCTAGC ACATCTGTNA CTCCTCCACT TCCACATTTT TNCAGTCTT ACACTTACGT 120  
GCAATCTTAT TCCTNGTCTG CACACACATG TGGAAAGCTA GAAATAAATG TTAATACTNA 180  
CTTTTAAA 189

SEQ ID NO:2715

LENGTH:187

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03162

SEQUENCE DESCRIPTION:

GATCAAATCT CTCCTGGCTG TAGTAACCCA GTGGAATGAA TTTGGNCATG CCCCAATGCT 60  
TCTATATGCT AAGTGAAATC TGTGTCTGTA ATTTGTTGGG GGGTGGATAG GGTGGGGTCT 120  
CCATCTACTT TTTGTCACCA TCATCTGAAA TGGGGAAATA TGTAATAAAA TATATCAGCA 180  
AAGCAAA 187

SEQ ID NO:2716

LENGTH:187

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03163

SEQUENCE DESCRIPTION:

GATCCAAGGG CACAAGGAGA TGAGCAAGGT GTGGAACGAC CTGAGGCCCA AGCTCAGCTG 60  
CCTCTTTGCG GGACCACACA GCACCCTGAC CCCACCGTGC TCCNNGNCGG AGGACGGCCT 120  
GTGTCTCAN TAGCGCCTGA GGCTGNNGTG GTGCTCCCTG CGGNCGCACT AAAACCTCTT 180  
TNCNAAA 187

SEQ ID NO:2717

LENGTH:188

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03164

SEQUENCE DESCRIPTION:

GATCCTCCTG TTTACCCTGT ACCTCCAATG TCTGGCACTT GTAGGTGCTC AAATATTCGT 60  
TGAATGAATG AAAAATCCAT ATTGTAATTG ATGTCCTCTG GCCACATAGT TTTAAAATTA 120  
GGTGATTGAT TATATGACCG AATAGAACTA TCAAATGTTT TCCTAATAAA GTCAATATTT 180  
CAAACAAA 188



2153480

SEQ ID NO:2718

LENGTH:183

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03166

SEQUENCE DESCRIPTION:

GATCTGCCCC CCTCAGCCTC CCAAAGTGCT GGGNTTACAG GCATGAGCCN TCGCGCCCGG 60  
CCGGATTTTT TTTTTTTTG ATTCAGCTTA TACCAGGGCT GAAAACCTCA NTTTATGTTT 120  
ATGACAGTNG GGATTTTTTT AAATGCCTAC ATTCTTTCTA ATAACTGTT GGAAGACNTT 180  
AAA 183

SEQ ID NO:2719

LENGTH:182

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03167

SEQUENCE DESCRIPTION:

GATCCAAGTG GCCCAGCAGA AACGGAATTN TNGTNAAAAT GACTGATTCT GGTGCATGTN 60  
AAAGGCTCTG GGGAAATNAAT ACCTGTTTGG TCCAACTTA CTGTATCATA ATGCTGTATA 120  
TGTINGAAAAC GTAATACCTG TNAATGTCCT AATGAATCAN GTTTTCAGA AAACACCGTA 180  
AA 182

SEQ ID NO:2720

LENGTH:181

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03168

SEQUENCE DESCRIPTION:

GATCCTCCAT TGGAGTGGCC CAATCTTTCC TCTAGGGCAA TCCTGAAAGC CCAAGGCCCT 60  
TCNCAGTCTG GCCTTGGCTT CAGCTGGAGA AGGGTAACAT CAGTCATTGT CAAGGCACCN 120  
CCANCCNGA CAGACCGTGT CTCTGATAAA GGTTTTGAAG TGATAAAGTT TAAAACTAA 180  
A 181

SEQ ID NO:2721

LENGTH:178

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03169

SEQUENCE DESCRIPTION:

GATCCTCACT CCACTGTCAT GTTTGAAAGA GGTATTGGTG TTCTGGAGTG GGGGTCAACC 60  
CCTCCCCAGT CTCTGTGCTA AGTTCACTTG GGAGGATGGC AGTAGGAGCC AGGGCTGGCC 120  
ATGGGTCCCC TACGCTTNCC NNTAGGATAT ACCCTGGAGA ATGGCAAAT GATTAAAA 178

SEQ ID NO:2722

LENGTH:287

00972

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03170

SEQUENCE DESCRIPTION:

GATCCTAAGG CAAAGAGGTG TTTTCCTTC TGGTTGATTC ATCCCAAAGC TTTCCACCC 60  
AGGTTTTCTC TGAAAGCTTA GCCTTAAGAG AACACGCAGA GAGTTTCCT AGATATACTC 120  
CTGCCTCCAG GTGCTGGGAC ACACCTTTC AAAATGCTGT GGAAGCAGG AGCTGGGGAG 180  
CTGTNTTAAG TCAAAGTAGA AACCTCCAG TNTNTGGTGT TGTGTAGAGA NTAGGNCATA 240  
GGGTAAAGNG GCCAAGCTGC CTGTAGTTAG TAGAGAAGAN TGGGGAN 287

SEQ ID NO:2723

LENGTH:178

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03171

SEQUENCE DESCRIPTION:

GATCACCATG ACTGCAACAT GGTATATATT CATGCTGCC TAGAACTTT TGAATTATT 60  
TGTGCAAAAT TTGTGACTGT CCTTATTAAC TTTCTTAT GTAAAGTAATT TGAAAAAGTT 120  
TCTNAAAATT TTTGCTTTTG CTTATTTAAT TTTNATAAA AGCTAAATC CTAATAAA 178

SEQ ID NO:2724

LENGTH:178

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03172

SEQUENCE DESCRIPTION:

GATCCTGGAG CCCCCTGTC GGGGGGCGAG GNGGGGCGG TGNCCGACGA GTTGANCTTC 60  
TNAACATGAG TGTCAACTTC AGGACTTGCT TCCAAGCCCT TCCCTCTGTT GGAAATTGGG 120  
TGTGCCATNN CTCCAAGGN AGGCCCATGT GACTAATAAA AACTGTGAA CCCTGAAA 178

SEQ ID NO:2725

LENGTH:337

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03173

SEQUENCE DESCRIPTION:

GATCCTTTTG AATTTGCAC AGCCCTAGAT ACAATCCCTT TTGATAAAAG GGTCTTGCT 60  
TCTNATTACA GGAGCACTGT GGAACGTCTG TAAATATGTT TTTATAATC CATGTATAGT 120  
TGGTGACAC TCAAACCTG TCCCGGCAG CCAGTGCTCT CTGTATAGG CCATAATGA 180  
ATTCTGAAGA AATCTTGGG AGGAAGGGG AGTTNGAACA AATGTCTGTT CCCTGGGAGG 240  
CCAGTCCAGT GCTCAGACCT TTAGACTCAT TGTAAGTTGC CACTGTCAAC ATGGGACCAA 300  
AGGTGTGTGA CTAGTCAATG AAAGTGGGN CANATTN 337

SEQ ID NO:2726

LENGTH:180

2153480

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03175

SEQUENCE DESCRIPTION:

GATCCAAAAC ACTCAATCCT CGTAAAAGGG TACAGGTCCT ATTGTATGTT AACACACGTG 60  
ATGATGTGAG CCATGTGAGA TGANCAATCA CCAGTTGTTA TGTTCCAATC TCCTTTGTGT 120  
TGGGCCGCTT TAATGTCAGG GTTTCATAA ATAAATGAAT TTTTCATATC TGAAGTAAAA 180

SEQ ID NO:2727

LENGTH:175

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03176

SEQUENCE DESCRIPTION:

GATCTGAGCC AGGATGGGAG TGAATCCCAG GCGGAGGCCA GAGCTGGCAG CCAGCTCTGC 60  
CTTTCCACTG CCGGGAGTGC TGGGGGCCCA GCCTGGCCCC CNGAAGAGAC AGCCAAGTGT 120  
CGTCCACATA CTCCTCCCAG AGTGAGCTCT AACCAGGCTC ATTTGCTCTN TCCAN 175

SEQ ID NO:2728

LENGTH:175

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03177

SEQUENCE DESCRIPTION:

GATCCTGTTN CCNACCTCCT TCTCCTCCCC TGTAATCCCC AGTGCCTTCC ATTGTCCTGG 60  
TGGAGCTGGG GTTCTCTCTC TCCCAGTCC CACAACACTG CCAAAAATCT GTGTATGTNC 120  
CATTGGGTGG GGCAGCCCCA AGCCTCCTGG GGAGGCAGGG CAAAAACAGG TGCCN 175

SEQ ID NO:2729

LENGTH:174

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03178

SEQUENCE DESCRIPTION:

GATCAGAGGA AAGATGAGAA AGAGAACAAG CATACCTATC TNACTCCTTC CAGTGGTCTC 60  
TGTTCCCTCC GTCTCCTGGA CCACGGCTAG AGTTCCCAGT TTGGCCTTTT GGGGCATTCA 120  
TCCCATCTAC TTTATTTTCA TCTGCTTGGG CAGTAATGTA AACAAATTAA AGGN 174

SEQ ID NO:2730

LENGTH:271

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03179

SEQUENCE DESCRIPTION:

GATCGTCTGG GAGCCCACTG TCAAGTCTGC TGGAATGCAG GAAGTAGAAC AGAATCGCCA 60

00974

CAGGACTGTT CTGGGGCCAG GTTCCCTTAA CTCTGTAGCC TGGCAGTCTG ACCCAAAGTT 120  
 GCCCTCACCC AAAGGTTCTG GCTCTTCCCT CCCTCACTTT TACTTTCCT TCCCCATAA 180  
 GTTGGAGGAT AAAATGGGTA TCAATGNTAA TTTTCCAGG GNGNCCATGN NNACCAGCGG 240  
 TTTCTNCTN TCTCTGTAAT CTGCTATGNA N 271

SEQ ID NO:2731

LENGTH:178

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03180

SEQUENCE DESCRIPTION:

GATCTNCGGN CTGTCGTTAG CAGGCTTAAT NAAGAACT TCTCAACAGT TTCCTTTTIN 60  
 TTTCTTTA TAATCTACTA AAATAAGCA TCTATTAGTG TCTGATTAG GAATGTAAAA 120  
 TAATTCTNTA TTAATGTAAA TAAGATTATC TATTGCAAAA NGATATTCA ANCCTAAA 178

SEQ ID NO:2732

LENGTH:172

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03181

SEQUENCE DESCRIPTION:

GATCTTACCA AAGAGGTCAA CACATGGGAC CTTTGTGTCA CATGAACCAT TTTTTCCT 60  
 CTCTATTAA GTGTATTNT GTTAAAGNTA CAGTTCTCTA AGAGAATTAC AATGTTGTC 120  
 CCATTCTAA GGGCTTCTNT TCAACTCTAA TAACAGCATT ATTCACGTAA AA 172

SEQ ID NO:2733

LENGTH:170

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03182

SEQUENCE DESCRIPTION:

GATCAGGAAA CGGCAACAAG CCTCCCAGTA CTGACCTGAA AACTTGTGAC AAGAAGAACA 60  
 CCAACAAGTG CTCCCTGGG TGAGGACCT TTTTGCCTC CCCACCCCGG AAGCTGNACC 120  
 TGAGGGAGAC AACGGCAGAG GGAGTNAGCA GGGGAGAAAT AGCAGAGGGN 170

SEQ ID NO:2734

LENGTH:176

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03183

SEQUENCE DESCRIPTION:

GATCTGGATT TATGTATTG TNAGATACAT ACGAATTGTT AAAATGGAAT GCAAGTTTTT 60  
 CAAAAGCCCA GGTCTAAATG TAATGGTTGG TTTATNGTNC TATAACCCCA GCCCATCATT 120  
 TCCTGTGTAA ATCATAAACA ATAAACAGAA TATACTCGGT GGCCATTCT AATAAA 176

SEQ ID NO:2735

LENGTH:163

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03185

SEQUENCE DESCRIPTION:

GATCCGCCCA CCTNGGCCTC CCAAAGTGCT GGGATTGCAG GCGTGAGCAN CCGCACCCGG 60  
 CCTCCTGAAT TAACATTTTC TAAAGATGCC TCCGGCGTGC TATCCTGAAA GCTGCCAGAG 120  
 GTGTCTTGGC TGCATTGGTG GTAATAAAAT TCATACTCAT AAA 163

SEQ ID NO:2736

LENGTH:162

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03186

SEQUENCE DESCRIPTION:

GATCTCAACT ATGTNCCACT AAAGGCACAG GAATGGAAAA CTGAGAAAAG ATTTATTGGC 60  
 CTCACCAATT CCTTTGGTTT TGGTGGTACT AATGCAACAC TTTGTATTGC TGGNCTGTAG 120  
 AACATATANT TNGTAATNAA ATACTGATTT TNAATGTTA AA 162

SEQ ID NO:2737

LENGTH:160

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03187

SEQUENCE DESCRIPTION:

GATCCTGCCA CCCTGTAGCG CCAGTNTAAT CCCCCAGGAG AACATCTTTG AACTCTTGCA 60  
 GACTGCTAGT GTTCTGTCTA AAAACCAGAC AAGGAAATAC CCTTCTTTTA TGAGCAGAAG 120  
 GAAACAAAAA AAAAAANGAG GCCCNTTNC CTGGANGAAA 160

SEQ ID NO:2738

LENGTH:159

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03188

SEQUENCE DESCRIPTION:

GATCTGCCTT ATTGCATATN CCATGCATCA GATAATGGAT GCATCAGATA ATGGNGTTAG 60  
 ACAAAGCTTC ATTGTGAACA ACCTAATGCA TTTNNGAGAA ACANTCTCAT CACATTTTTC 120  
 CTAGCCTTNC CTACATTTAA NCTTGCTGTT GCCCAAATN 159

SEQ ID NO:2739

LENGTH:157

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03189

## SEQUENCE DESCRIPTION:

GATCAGANGT TTCACTTGTT TCTCAGTTAT TGGATATGTA TCTTTGTGTA CATATCTTTG 60  
 CAAAANTGGA TAAGTACAAA NCTTGATGTA AATNGTACCA ATGANTATGT AAACATACAG 120  
 TGACANCATT AAACCTAGAA AAGTTTTAAA ACTTAAA 157

SEQ ID NO:2740

LENGTH:153

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03190

## SEQUENCE DESCRIPTION:

GATCCACTGG AATTAGCCAA TACACTATAT AACAATACTA TTAAAGTATT TTTTCCTGGA 60  
 ATATAATTGG TATATGTCTT CCACTTTCCA TCATGTATGT AAAATTTTAT AGTAAAACTT 120  
 CCTGATAGTT TCAATAAAGA AATNATCTGC AAA 153

SEQ ID NO:2741

LENGTH:151

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03192

## SEQUENCE DESCRIPTION:

GATCTTNAAT GCTTTGGAAA TCGTGTAAC AGTACTGCAA TAATCACAGC TCTGGGAAAA 60  
 ACAACGAAAC TTTCCCTTGT GGAGAGGAGG GATTTCCTG CTCTATATAA GCAACATATT 120  
 TTNAGACATT AAAATATGGT ATNCNNNNCC N 151

SEQ ID NO:2742

LENGTH:150

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03193

## SEQUENCE DESCRIPTION:

GATCTTNTN ATCCAAGCAA TAACGGGACG AGGGAGCCAG GGCCAAGGAC ACTCAGGGAC 60  
 ACTGTTGGGG CAGCGGCCCC ACATGGTAAT GTTTTNTTTA GAGAGAAGAA AAAACAACCTG 120  
 GCTGTAAACG TAAATNATAT TTNTTGAAAA 150

SEQ ID NO:2743

LENGTH:150

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03194

## SEQUENCE DESCRIPTION:

GATCGTNTTT TTNCTTGTTA AATAATTAAA ANTCATCTTA AAATTCATAC TTTGACTTTA 60  
 ATTTAGACAC AAGGAGATGT AATCCTGTG TAACATCAGA GAAAGCTATA TGGATTATNG 120  
 TCAGANGTAA ATGTTTCTAA CATTGACAAA 150

SEQ ID NO:2744

LENGTH:149

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03195

SEQUENCE DESCRIPTION:

GATCGAGTTG GCCGAGGATG GATGATTNTG NGCAGCAGAA GCCGTTGCAG CCCCACGTTG 60  
TGCTCTAGGC AGGGACCTTT GGCCCCTTTG GGGAGGGAGA GACAGACGGG CGGTTTGACT 120  
TGGACACAAA GAAAGCCTTG GTTCTAAA 149

SEQ ID NO:2745

LENGTH:145

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03196

SEQUENCE DESCRIPTION:

GATCCCAGGT CTGGGGATGG GGGACACCTT NGGCCACAGG ATACTGGTTG CTTCAGGGGT 60  
ACCCATGCCC NCTGCCCTNG CCTGGAATCA GTGTTACTGC ATCTGATTAA ATGTCTCCAG 120  
AAATAAGAA TAATTCTGCC AGAAA 145

SEQ ID NO:2746

LENGTH:143

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03197

SEQUENCE DESCRIPTION:

GATCACTCNT AGAGTNGCCA TTCTGCANCT TCCTAAAAAT ATTTAAAAA TACATTTATT 60  
TTACTAAATA CTGACTACAT TTNTNTGTTA ATATTGAGCT AAATGTAAAA AAATGGCCAG 120  
ATTAAAAAGAT ATCAATTTGT AAA 143

SEQ ID NO:2747

LENGTH:142

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03198

SEQUENCE DESCRIPTION:

GATCCATAGT GTGCATGGGC AGACACATTT TGCCTCTATG TCTCTAAAA TTTTAATTAA 60  
AAATACTCTT TCCAGTAATC CTAATTTGCA CGAAGATATA ATGTCCACAT TACGTGCCTT 120  
GCCTTGAAAT CTAATAAACA AA 142

SEQ ID NO:2748

LENGTH:142

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03200

2153480

SEQUENCE DESCRIPTION:

GATCTCACAG GACTGAGAAC TCGTTCACCT CCAAGCATT CATGAAAAAG CTGCTTCTTA 60  
TTAATCATAC AAATCTCAC CATGATGTGA AGAGTTTCAC AAATCTTCA AAATAAAAAG 120  
TAATGACTTA GAAACTGCCA AA 142

SEQ ID NO:2749

LENGTH:141

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03201

SEQUENCE DESCRIPTION:

GATCTTTTCA TTTCTTACTA GCTTTTAAGA AATNAAATAC TTGCCTGAGA TAGAAATACT 60  
TTATTTTGT AACTTTAAGG TCTAAATNAC TAAACTTCAA AGTAAGATT TNTCAGAATA 120  
AATTGAGACC ATTAATCTAA A 141

SEQ ID NO:2750

LENGTH:140

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03202

SEQUENCE DESCRIPTION:

GATCAGAAAA AGAAAGAAGC CAAAGAGAAA GGTACCTGGG TTCAACTANA ACGCCACCTT 60  
GAGCTGCTGG AACCTATTCC CTATGAATC ATGGCATAAT AGGTGTTAAA AAAAAAANA 120  
AAGGACCTCT GGGNTACAAA 140

SEQ ID NO:2751

LENGTH:135

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03204

SEQUENCE DESCRIPTION:

GATCCTATTT TCNTACAACC TTTCACTGAC ATCGTTCAGG NTTCTTTCTT GGCCATTAA 60  
AAAAACAAAT TTTTTTNC TCACTTGTA GTCACCGCCA GTNCCTAAGT NAGGCTAACG 120  
GNGACTTTGA CAGGN 135

SEQ ID NO:2752

LENGTH:134

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03205

SEQUENCE DESCRIPTION:

GATCAGTAAT AGATNTAGAT ATACTATTT NATATTGTAA GCAGTTACNT ACTCAGGATT 60  
AGNATTCGAA TTCATTTGAT TTAATATGTA ATAGGTAATA TAAAANTAA AGATTTTATG 120  
CTTTGAACT CAAA 134

00979



SEQ ID NO:2753

LENGTH:133

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03206

SEQUENCE DESCRIPTION:

GATCAGACGT CGCTGAGGGG CTGTNCACCA CCATCCTCGT TCTCCAGGGT CAAGGAAGTG 60  
TTTAAACATG TCGTGTTC GACTTGACCT TGTGGTATTT TNCTNGGCCT AGTTGTGTGC 120  
CATGGATATT AAA 133

SEQ ID NO:2754

LENGTH:141

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03207

SEQUENCE DESCRIPTION:

GATCACTGTA GTTTAGTTCT GTTGACCTGT GCACCTACCC CTTGGAAATG TCTGCTGGTA 60  
TTTCTAATTC CACAGGTCAT NAGATGCCTG CTTGATAATA TATAACAAT AAAACAAC 120  
TTCACCTCTT CCTATTGTAA A 141

SEQ ID NO:2755

LENGTH:132

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03208

SEQUENCE DESCRIPTION:

GATCGTTATA TTTNACATAA TATAACAAA ATNACTAATG CATCTATATN CTTGGTTTCC 60  
TTAAACTACA ATNAACCACA GAATGGGTGA AAATGCAGGC ATGCACGCTT GGC GTAATCA 120  
TGGATGNNGC TN 132

SEQ ID NO:2756

LENGTH:131

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03212

SEQUENCE DESCRIPTION:

GATCCGNC CG CCTCAGCCTC CCTATATGTT TAAAAATATA ANTTTATTCT TAAAAANTA 60  
AATTNAANCT AGATTGAGGT AGTAATTACA ACAGTCCAGC ACATTATGGA TAATTAATAT 120  
TNATATTTAT N 131

SEQ ID NO:2757

LENGTH:136

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03213

2153480

SEQUENCE DESCRIPTION:

GATCTGATAT TTTAAGANTT TGGAGACCAT TTCCTGTGCC AGANTCACTG CTCTATTCCA 60  
TACCGTGCCA TGGAGGCTGT TTTAGAAGTG GTTGGATAAC ATGTAAATA AAATATTAAG 120  
TGTAATAAAA AATAAA 136

SEQ ID NO:2758

LENGTH:129

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03214

SEQUENCE DESCRIPTION:

GATCCACCCA CCTTGGCCTC CCAAAGTCCT GGGATTACAG GTGGGAACCA CAGCACCTNA 60  
CCCAGAATAT AAAGACACTT TTNTAATGTG CAATGAAAAA TATGTAAATA AANTATTTTT 120  
ATCTNTAAA 129

SEQ ID NO:2759

LENGTH:129

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03215

SEQUENCE DESCRIPTION:

GATCCACCGT ACCAGGNAGC AGAAATATTT CTACAAAGGG GGCCTAGTTT GGAATGAGAA 60  
CANNTCTGAC GGCCGGTATG TGAAGGAGAA CTGCAACCT CTGAAGAGTT ACATGCTCCA 120  
AGACTCCCN 129

SEQ ID NO:2760

LENGTH:408

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03216

SEQUENCE DESCRIPTION:

GATCATGTTG GGATTAACCT GCCTTTTTC CCAAAAANNA AACTCTCAGG CAAGCATTTT 60  
TTTAAAGCTA TTAAGGGNGT ATATACTGA GTACTTATTG AAATGGACAG TAATAAGCAA 120  
ATGTTCTTAT AATGCTACCT GATTTCTATG AAATGTGTTT GACAAGCCAA AATTCNNGG 180  
TG TAGANATC TGGAAAGTTC ATTTCTGCGG ATTCACCTTCT CCAGGGGATT TTTAAAGTTA 240  
ATTTGGGAAA TTANCAGCAG TTCACCTTAT TGTGAGTCTT TGCNACATTT GACTGAATTT 300  
AGCTGTCTATT TGTNCATTTA AAGCAGCTGT TTTGGGGNCT GTGAGAGTCC ATGTATTATA 360  
TCCAAGCCCA CCAGGGGCTTN CCCTAAGGAN TTGCCATNGT AATACCCN 408

SEQ ID NO:2761

LENGTH:128

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03217

SEQUENCE DESCRIPTION:

00981

GATCTAGGAA AGAAGGCAAC TGAAAAACCT GAAAGAAAAA AAATNAAAGA TAAAAAGTAT 60  
 ACGATATTCT ATTTTGATTT AGCAATTACT TGTTTNCNAG TGTNCTGTNA ATTTTGGTN 120  
 ACTTTAAN 128

SEQ ID NO:2762

LENGTH:258

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03218

SEQUENCE DESCRIPTION:

GATCGGCAGG CTGAGGACCA GGTCCTGAGG AAGCTGGTGG ATTTGGTCAA CCAGAGAGAT 60  
 GCCCTCATCC GCTTCCAGGA GGAGCGCAGG CTCAGCGAGC TGGCCTTGGG GACAGGGGCC 120  
 CAGGGCTAGA CGAGGGTGGG CCGTCTGCTT TCGTTCCAC AAAGAAAGCA CCTNACCCCA 180  
 GCACAGTGCC ACCCNTGTTT ATCTGGGCTG NCTGGCAGAG AGCCTTGCTG TTTACAATTA 240  
 AAATGTTTCT GCCACAAA 258

SEQ ID NO:2763

LENGTH:128

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03219

SEQUENCE DESCRIPTION:

GATCCTTGTT GGTCTAGCTA AATACTGTTA GGGGAGTGTG CCCCATCTCA TCATTTGAA 60  
 GATAGCAGAG TCATAGTTGG GCACCCAGTG ATTGGGTTC AAAATAAAGC TGGTCTGCCT 120  
 CTTCTAAA 128

SEQ ID NO:2764

LENGTH:126

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03220

SEQUENCE DESCRIPTION:

GATCTNCCGC TCCCTCCCTG AAGGGCATGG GGCCAGGGNA GTCTGGACAG CCGCCCCCAG 60  
 CCGTCTGACC CCCAGCTTTC TACAGACACC ANATTGTAA ATAAAGTTGG GGAATGGACA 120  
 GCCAAA 126

SEQ ID NO:2765

LENGTH:126

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03221

SEQUENCE DESCRIPTION:

GATCTTTTAA GGCCTTCATT TTATGTTTTT CCTTAACTGT TATATTATNA TTGTAACATA 60  
 GATTATACTA CTACTAATTN NTGGATGTNT CAAAAGGTCA AGAAGTAAAA NATGTTAGAA 120  
 AGCAAAA 126

SEQ ID NO:2766

LENGTH:125

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03222

SEQUENCE DESCRIPTION:

GATCTCTGCA CAGTTTCTTG TTTAGTCTTA TGCCTTTTAG TTGAAAAACA AATTGTATTT 60  
TTTTCCTNCT AAGTTTCATG GCCCTAGAGA AGAAGCCAAT NTNNTAAAG ATGTTATCCC 120  
NGAAA 125

SEQ ID NO:2767

LENGTH:124

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03223

SEQUENCE DESCRIPTION:

GATCCTGGTT TCAATGACGG TTGGAAATAG AAATTNCCAG AGAAGAGAGT ATTGGGTAGA 60  
TATTTTTCCT GAATACAAAG TGATGTGTTT AAATACTGCA ATTAAAGTGA TACTGAAACA 120  
CAAA 124

SEQ ID NO:2768

LENGTH:131

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03224

SEQUENCE DESCRIPTION:

GATCACTTAG CAACATGCTT GGNAATTTGG NATCTNTAAA GGTAGGAGAG TGGTGAACAG 60  
ATAATCTATG CATATATNAC TAGTGCCAAG ACATAAAGCG GGGGAAAATA TATTTTANCC 120  
CAAACATTAA A 131

SEQ ID NO:2769

LENGTH:123

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03225

SEQUENCE DESCRIPTION:

GATCAATTAC CTAATGTTT CTTGGTCTAT TTATGTATAA GAATGCTTTT TAAAGCACAT 60  
GTCTCATTTT AAATNACGCA CAAACTGAAG ATGTAATAA AATTAAAGAG TAATACAATG 120  
AAA 123

SEQ ID NO:2770

LENGTH:388

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03227

SEQUENCE DESCRIPTION:

GATCCATTG TCTGGCAGGA GGTTTTGTAT GATAAAGCAA CGCTTGCGCC AAGGCACAAT 60  
 AGTTGAAGNA TGAAAAGACA GCGCATATCC TGAGGAACTC AGTAGAGTCA CAGCATCTGG 120  
 CTTCCCTGTA ATCCTTTCTN CTCCTNGGTA CTTAGATTNG ATTAGCTATG GACAAGATTG 180  
 GAGGAAATAC TATAAAGTGG AACCTCTTGA TTTTGGCGGT ACTCAGAAAC AGAAACAAC 240  
 TTTCATTGGT GGAGAAGCTT GTCTATGGGG AGANNNTGTG GATGCAACTA ACCTCACTCC 300  
 AAGATTTATG GCCTCGGGCA AGTGCTGTTG GTGAGAGACT CTGGAGGTTT CAAAGATGTC 360  
 AGAGATATGN GATGACGCCT ATNACAGN 388

SEQ ID NO:2771

LENGTH:219

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03229

SEQUENCE DESCRIPTION:

GATCGATGGA CCGTAAATAA GCTGCCATTA ACACATCTGG TTACTGCTGT AACATGACTA 60  
 ATAAAACCGA ACGCCTGTTC CCCTTACCCG TGTGGGGGAC ACGCAGATGA GTGAATTGGA 120  
 ATGTCCAGCA GAGTTACCCT CCCAATTATA TGTTCAATTT GTATATTTTT TGGTCGGGGG 180  
 AAAAATTGAC CTGCAGTAAA AAAACCTTTG ACCATTAAA 219

SEQ ID NO:2772

LENGTH:120

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03230

SEQUENCE DESCRIPTION:

GATCAGCACA GGAAGAGCCT TCCTAAGCAT GTGGTCCCAG GGAAGGGTGA AAAGTAGGAG 60  
 TTATGAACGT AATCCACCTA CTACAATGTT GAATTAAAGT TATAATCTCA TAACTTCAAA 120

SEQ ID NO:2773

LENGTH:120

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03231

SEQUENCE DESCRIPTION:

GATCCGCCCC CCTCGGCCTC CCAAAGTGCT TGGATTACAG GCATGAGCCA CCGCACCCAG 60  
 CAAGAGTTAT TTNNTTAACT TGAAATTTTC TACTAGCCCT GGTGAACTTC TGTGCTTAAA 120

SEQ ID NO:2774

LENGTH:119

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03233

SEQUENCE DESCRIPTION:

GATCCAAGGT GATACAGCTG GTAAGTATG GAGATGTTGG TAGTGAAATN CATGTACTTT 60  
TAGTNCCTTC TATGGAATCT AGAGGNAGAA TACATGTACA AGAATATCGA CTACCGTCN 119

SEQ ID NO:2775

LENGTH:117

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03234

SEQUENCE DESCRIPTION:

GATCCCAGCT GTGTGTCACC AGCAGCTTTC CCAGCTTCTC TGTGAGGGTC ACTGCTGCCC 60  
ACTGCAGGGT CCCTGAGGTG AAGTAAACGC CGGCGCTGGG CTTGGCCAGN CGGCAAA 117

SEQ ID NO:2776

LENGTH:115

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03235

SEQUENCE DESCRIPTION:

GATCATTCCC ATTTCATAGG TTTTATTGT GGAATAGTCA ACTTAATATA GATTCACTTT 60  
CAATTTGCAT GTATAANGTA ATACTCAATA AAATTTTTC CATTNATTTT NCAAA 115

SEQ ID NO:2777

LENGTH:217

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03236

SEQUENCE DESCRIPTION:

GATCCTGGGG TTGGTCTGCT TTGTGTATGG TACTTGAAAC CACGCTGTAA TTATTGTCCT 60  
GTTGCCAAAC AAAAGCCAGT CATGTAACTC TAGAAGCAGT GACTGGTGGG GCTTTCTGAC 120  
AGTTCCATGC TGATGTATCA GGCCATCTGT GTCATGCTTA TGTATTATGG CAAGAAGAGG 180  
AAACTGGAT TAATAAATAC GTTTNNNNN NGTTAAA 217

SEQ ID NO:2778

LENGTH:114

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03237

SEQUENCE DESCRIPTION:

GATCCTNAGC AACGAACACC TGCACCTAGA AAAAGTGGAC AGCTTCTNCC AACCACACCC 60  
TACCCATGGN ACTGTATGCA ATTAACCTCT GGAAACGCCC CGTAAATNCN AGTN 114

SEQ ID NO:2779

LENGTH:113

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03239

## SEQUENCE DESCRIPTION:

GATCCAAAAT TACCTTAAAT GGAGTTAAGT AGGCTTTGCA CTAAATGGAT ATAAAAGAGG 60  
 CTGTCTGGNC TNCTATGAAA TNATGATTAA AATCCTTTGT GTTGTCTTTT AAA 113

SEQ ID NO:2780

LENGTH:359

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03240

## SEQUENCE DESCRIPTION:

GATCCTTAAA GAAGGTGTGG GGTCTTTCCC AACCTGAGGA TTTCTGAAAG GTTCACAGGT 60  
 TCAATATTTA ATGCTTCAGA AGCATGTGAG GTTCCCAACA CTGTCAGCAA AAACCTTAGG 120  
 AGAAAACCTTA AAANTATATG ATTACATGCG CAATACACAG CTACAGACAC ACATTCTGTT 180  
 GACAAGGGAA AACCTTCAAA GCATGTTTNT TTCCCTCACC ACAGCAGAGC ATGCAGTACT 240  
 AANGCGATAT ATTTNTGATT CCCCATGTAA TTCTTCGGNG GNNGGNCAGT GCAGTNCCTCT 300  
 TTCGGAAGCT TAAGATGGCC NTGNGGCCTG NCCNNNNGGN CATATGCCCC TGAAGGGCN 359

SEQ ID NO:2781

LENGTH:191

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03241

## SEQUENCE DESCRIPTION:

GATCTAGGGC AGGCTGTCTT CCAGTCCATG TGTTCTCGGT CGCCGTAGAC AGCGCTCTGG 60  
 CTACCACCGT GAGGCTACTT GAACTGTCAG GGGCATCTGC CTAAACCAGA ATCTTTTGTC 120  
 AGAAACCTTA ACCCAACAAA ACAAATCTTG AGTAGTCAT GCCCGGCTCT TAGGAATTTT 180  
 GTCTGTTTAA A 191

SEQ ID NO:2782

LENGTH:111

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03242

## SEQUENCE DESCRIPTION:

GATCACTCAA CAGCACTGTN ATGTATTATT TNNAATGAGG TGCCTTTTTT AACTGACCAA 60  
 ATGCTGCCTT GTTTGGCCCC TAANTCAATA AAATATGTTA AAATTGTAA A 111

SEQ ID NO:2783

LENGTH:109

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03243

## SEQUENCE DESCRIPTION:

GATCTAAGAA ATAGAATTAG GGAGAGTTTA CACTTACTTA CCTATATAAA AGCAGATTTT 60

CNTGGAAGAA ACCCTTTTTT TTTTTTTTTT TAAANAGNA NCANCCAGN

109

SEQ ID NO:2784

LENGTH:340

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03244

SEQUENCE DESCRIPTION:

GATCCAGAAG CTGGTGGACG TCACCACGGC ACAGGTGTAA CNTCCATGTN CCGTGTGAGC 60  
 AGAGTCCCTA CCAACGGGCA GGTCTGCATC CGGGGAGAAT GCAGCTGCTT CTGGCGACAA 120  
 TCCTGCTAGT AAACACTGGT CTTCGGTGAG CAACGAACAC TCGCCTGGGN TGGGAAACTG 180  
 CATGCCCCACT TTNTGGGAGG GGTTAGTGCA GGTGCCGTGG ACAAAGGACA ACATTCTNT 240  
 GGGGCTTTT AACTTTTATT CCTAAGACTC TAAAGGCGTT GATTCAACC CTCCTTCACT 300  
 CTGGCTTCTT CAGGNAACCC ACGTGGTCTC CTGTNAGNTN 340

SEQ ID NO:2785

LENGTH:108

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03245

SEQUENCE DESCRIPTION:

GATCTTTAAG ACAACAAGTT AGGTTCTTAC TGGAGTTACC TGCCAGANTG GCCTCTTAAT 60  
 TAACTCAGGT AATGAAGAGC TAACTGTGTT ATAATCATCT NCCNNNTN 108

SEQ ID NO:2786

LENGTH:108

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03247

SEQUENCE DESCRIPTION:

GATCTGCTAA AAATGGCAAT TGTAAGATNA TGTTGTATGT AATGTACATA TGGAGAAAGA 60  
 ATGTATTTTN TCCATTTCTT TAATAAAATG TTATATATGG NTGCTAAA 108

SEQ ID NO:2787

LENGTH:107

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03248

SEQUENCE DESCRIPTION:

GATCTCTGAG GCTNCGGTCA CCACCCACAA GTTGTGGCCT TGGATACCAC ACTNCAGTTG 60  
 GGTGGTGATG GGGTNGTGCC TTCTAACTTT TNCNTATCT TTACCGN 107

SEQ ID NO:2788

LENGTH:125

TYPE:nucleic acid



TOPOLOGY:linear

CLONE:HUMGS03249

SEQUENCE DESCRIPTION:

GATCAGTAAG GATGACTGGT GTTTCTGAC TTNACAAA TTA CTGTTT GTTTCATTA 60  
 AAAAAAAGC ATAANCTATG TTTCTNATTA CTATTAGAAT TATTAAATT CAAAATGAAT 120  
 CCAAA 125

SEQ ID NO:2789

LENGTH:104

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03251

SEQUENCE DESCRIPTION:

GATCGATTCT NTGACACAAA CCCCACCAAT TGTNAATGCA AGTTTTTATT TGGCTGTATA 60  
 TACAATTAA GCTATTAAAA TTTGTACAAT ATTTACAAAT NAAA 104

SEQ ID NO:2790

LENGTH:104

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03252

SEQUENCE DESCRIPTION:

GATCATTACA TCTNAGATGT ACGTNGGTTT AGTCGGAAAG GTGGGACGAT TTGAAGGGGA 60  
 GGNACTTTCA GGT CATAGGC GGATTAAAN ATGCCTGAT TAAA 104

SEQ ID NO:2791

LENGTH:104

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03253

SEQUENCE DESCRIPTION:

GATCCAAGCT ATGANATANC CAACAGTATT CAAGANGCAA CCAGCACCAT CATGTGATAA 60  
 TGGTACTATG GCATATATGC AACATTAAAN TTITAANTTA GAAA 104

SEQ ID NO:2792

LENGTH:132

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03255

SEQUENCE DESCRIPTION:

GATCCAGTCT TAATTTGAGC ATGAGAGCAA AATTTAGTCA TCTACACAAG AAGCAAAAGC 60  
 AAGGAATAGT TGT TGGGTTT TNGTTTTTTG GTTGTGTNT TTTTTGTN GTTAGGNANG 120  
 ANGTGTTCCC GN 132

SEQ ID NO:2793

LENGTH:102

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03257

SEQUENCE DESCRIPTION:

GATCCAGGTG GTGTTACATG TCCATTTTCAT GTTTTGGGGG CTTTTCAGCCC NACAAAACAC 60  
CTTCAGTAGA GCCTTGATTA AAAGGAAACC TGNAGACTCA AA 102

SEQ ID NO:2794

LENGTH:100

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03258

SEQUENCE DESCRIPTION:

GATCTTCCCC TAGGGGGCCC TCTTACTCCT NCCTCTCTCC TCCTCCTTCC CCATTGCTGT 60  
AAATATTNA ACGAAATGGA AAAGAAAAA AAAAGACAAA 100

SEQ ID NO:2795

LENGTH:100

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03259

SEQUENCE DESCRIPTION:

GATCACACAT CAAGACTATC TACAAAANTT TATTATATAT TTACAGNAGA AAAGCATGCA 60  
TATCATTAAA CAAATAAAAT ACTTTTATC ACAACACAAA 100

SEQ ID NO:2796

LENGTH:98

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03261

SEQUENCE DESCRIPTION:

GATCTAAATA CAAAGGATAT ACAGTCTTGA NTCTAAAATA ATTTGCTAAC TATTTTGATT 60  
CTTCAGAGAG AACTACTAAT AAAAATCTAA AAGGTAAA 98

SEQ ID NO:2797

LENGTH:97

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03263

SEQUENCE DESCRIPTION:

GATCGTNCCT ATAAATAGTA GGACCAATGT TGTGATTAAC ATCATCAGGC TTGGAATGAA 60  
TTCTCTCTAA AAATAAAATN ATGTATGATT NGTTAAA 97

SEQ ID NO:2798

LENGTH:96

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03264

SEQUENCE DESCRIPTION:

GATCACTAAA GTATATCTTT AATTCTGGGA GAAATGAGAT AAAAGATGTA CTTNTGACCA 60

TTGTAACANT AGCACAANTA AAGCACTTGT GCCAAA 96

SEQ ID NO:2799

LENGTH:93

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03267

SEQUENCE DESCRIPTION:

GATCTGCTGT CTCGTCCTT CCTGGGTCCC AGCAGCTGTC CTGCAGCTGT CAGCAGGAGG 60

GCCTGGCTTT AATAAAGAGT GGACAACTG AAA 93

SEQ ID NO:2800

LENGTH:93

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03268

SEQUENCE DESCRIPTION:

GATCAAGTTC GAGGAGGCAG TCATCGCTCG AAACCGGGCC CTGGAGGGCC GCTNACCCTG 60

CCGGANATAA AGNATACAGA GAGCCCTCC AAA 93

SEQ ID NO:2801

LENGTH:89

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03271

SEQUENCE DESCRIPTION:

GATCCATTCT TGTATTGATA GATATTTGAA TGTTTCCAGT TTTTCCTATT ATGAATAAAA 60

CTGCTATGAA CATTCTTGTA TAAATCAAA 89

SEQ ID NO:2802

LENGTH:95

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03274

SEQUENCE DESCRIPTION:

GATCGACAGC GTCCTGGCCT AGGGTGCCGG GGCCTGAAGG TCAGGGTCAC CCAAGCAACA 60

AAGTCCCGAG CAATGAAGTC ATCCACTCCT GCAA 95

SEQ ID NO:2803

LENGTH:84

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03279

SEQUENCE DESCRIPTION:

GATCTCTACA GAGAGAAGTG GAAAATGCTG TATCAAGGGT GGGCTTAGCT GTGCCTTTCC 60  
AATAAAGATG TGAGAAGCTT CAAA 84

SEQ ID NO:2804

LENGTH:79

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03281

SEQUENCE DESCRIPTION:

GATCTTTGCC CCTGGTATGC ATTTNTGGAC TCCACTGAAT CCTGNGAAAA AAAATTAAAC 60  
TTCCTTCTTA CTGCCCCAA 79

SEQ ID NO:2805

LENGTH:79

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03282

SEQUENCE DESCRIPTION:

GATCCTGTCA GTTCCATNAG CTATTCCTCT TTGGTTTGGC TTTTGTATAT NATTAAAAATA 60  
ATNTTTAATT CCTTTTAAA 79

SEQ ID NO:2806

LENGTH:77

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03283

SEQUENCE DESCRIPTION:

GATCAATTTT TATAAAATC GAGACAGTTC TGTGGTTAAA TCTACAAATT AAAGGGAAAT 60  
TAGAAGTTGG CGTAAA 77

SEQ ID NO:2807

LENGTH:77

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03284

SEQUENCE DESCRIPTION:

GATCTATTTT ATGCATATTG TTTATAAAGA CACATTTACA ATTTACTTTT AATATTAAAA 60  
ATNACCATAT TATGAAA 77

SEQ ID NO:2808

LENGTH:75

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03286

SEQUENCE DESCRIPTION:

GATCTTCAGT AAGTCTCTCA GGCTCTCTGA GCTTGTTTCAT CCTTGTTTT GAAAAAATTA 60  
CTCAACCAAT CCAAA 75

SEQ ID NO:2809

LENGTH:74

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03289

SEQUENCE DESCRIPTION:

GATCCCTTCA CAGCAGTAAA CCAGCTCTTT GGAACCGATT CCATCACCCC AATAAAGGAG 60  
CTCTTCACAG CAAA 74

SEQ ID NO:2810

LENGTH:73

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03294

SEQUENCE DESCRIPTION:

GATCTGTTTC TTTTAAATT TACACTTTN CTTCCGGTT TGCCGGAATA AACAGGACCT 60  
TTGACATTTG AAA 73

SEQ ID NO:2811

LENGTH:66

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03296

SEQUENCE DESCRIPTION:

GATCCATTCT AAGACTTATT GGCTGTTTGG AAGTGATAGC AAATAAAANC CACCTTGAAC 60  
TGGAAA 66

SEQ ID NO:2812

LENGTH:67

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03297

SEQUENCE DESCRIPTION:

GATCCGAGGG GGAGGGGTGG GAAGGGGAGA AATNAAATA AAAGATAATT ACTGAACACG 60  
CCGNAAA 67

SEQ ID NO:2813

LENGTH:63

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03299

SEQUENCE DESCRIPTION:

GATCATTGAA TTTAAGGCC ACCCAAGTC CAGANTGACC TCGCAAGACC CTAACTCAC 60  
AAA 63

SEQ ID NO:2814

LENGTH:62

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03300

SEQUENCE DESCRIPTION:

GATCTTTTGT ACTTNTNATA ACCTAATGTC AGACTAAGAA AAATAAAATA TCTGAGAGTA 60  
AA 62

SEQ ID NO:2815

LENGTH:60

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03304

SEQUENCE DESCRIPTION:

GATCCCTTCG AGACTAANTC TGTTACCAGT CATGAAACAT TAAACCTAC AAGCCTTAA 60

SEQ ID NO:2816

LENGTH:68

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03305

SEQUENCE DESCRIPTION:

GATCTTTGTC TTTTGTCATG ACAAAGCATT TATTTAATAA AGTTATGCAN TCAGTTAAAA 60  
AAANCAAA 68

SEQ ID NO:2817

LENGTH:58

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03306

SEQUENCE DESCRIPTION:

GATCAGATTT TTTATGCCAT CCTCATTAGT TTTCCAATAC AATATAAGTT GAAACAAA 58

SEQ ID NO:2818

LENGTH:58

TYPE:nucleic acid

TOPOLOGY:linear  
CLONE:HUMGS03307  
SEQUENCE DESCRIPTION:  
GATCTCAGAC TTCTGGCTTC CACAACGTGA ACAATAAATT TATGTCGTTT AAGCCAAA 58

SEQ ID NO:2819  
LENGTH:57  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS03308  
SEQUENCE DESCRIPTION:  
GATCCACTGG GTGAATCCTC CCGCTCAGAA CCAATAAAAT AGAATTGACC TTTTAAA 57

SEQ ID NO:2820  
LENGTH:56  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS03310  
SEQUENCE DESCRIPTION:  
GATCTGTGGT CATTGTCCCT CTGCAGAATA AAGATTGCTC AGGCCTGCCT GGCAAA 56

SEQ ID NO:2821  
LENGTH:59  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS03311  
SEQUENCE DESCRIPTION:  
GATCTTTGGT TTGTTTCCAG GTTTGTTAT TATNAATAAA GTTGCTGTGA ATACTTAAA 59

SEQ ID NO:2822  
LENGTH:56  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS03312  
SEQUENCE DESCRIPTION:  
GATCTTCATT GGGGGATTGA GCAGCATTTA ATAAAGTCTA TGTTGTATT TTGAAA 56

SEQ ID NO:2823  
LENGTH:54  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS03313  
SEQUENCE DESCRIPTION:  
GATCTAAGAA ATAAAGAGAA ATGTTTCANT TTGCATTGAA ATAGGAAAAC GAAA 54

SEQ ID NO:2824  
LENGTH:53  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS03315  
SEQUENCE DESCRIPTION:  
GATCATNACT GGCTTTGCGC ATCGAGGGGC CATTAAAGAG TCTACTTTTC AAA 53

SEQ ID NO:2825  
LENGTH:52  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS03318  
SEQUENCE DESCRIPTION:  
GATCTTTTAA AAAGTCAAG TGTGAATAC TAGAGGTTGT TAGACNTTA AA 52

SEQ ID NO:2826  
LENGTH:51  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS03319  
SEQUENCE DESCRIPTION:  
GATCTTGCCA CTGTAGTCCA GGCTGGGCTA CGGAGAGACC CTGCCTCCAA A 51

SEQ ID NO:2827  
LENGTH:54  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS03324  
SEQUENCE DESCRIPTION:  
GATCCTTGCT GATAAATATA ACCATCAATA AAGAAGCATT CTTTCCAAA GAAA 54

SEQ ID NO:2828  
LENGTH:50  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS03325  
SEQUENCE DESCRIPTION:  
GATCTCACCA CACTGCAACC TCTGGCGACA GAGCGAGACT TGGTTTCAAA 50

SEQ ID NO:2829  
LENGTH:50  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS03326



2153480

SEQUENCE DESCRIPTION:

GATCCACCCA CTCTCTGAAA CTTCTTTGCT AATAAAACAT TCCTACTAAA 50

SEQ ID NO:2830

LENGTH:55

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03331

SEQUENCE DESCRIPTION:

GATCTTTTTT TTTCTTACA GACACCCATA ATAAAATATC ATATTAAAT TCAAA 55

SEQ ID NO:2831

LENGTH:53

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03332

SEQUENCE DESCRIPTION:

GATCCAGGGG GAAATGCTGG AAGTCAATAA AACTGAGTTT TGAGAGCTTG AAA 53

SEQ ID NO:2832

LENGTH:131

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03356

SEQUENCE DESCRIPTION:

GATCCACATA AAAAGAAATG TGAAGTTTC TTTTACTATC TTTTCATTTA TCAAGCAGAG 60  
ACCTTTGTTG GGAGGCGGTT TGGGAGAACA CATTCTAAT TTGAATGAAA TGAAATCTAT 120  
TTTCAGTGAA A 131

SEQ ID NO:2833

LENGTH:431

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03374

SEQUENCE DESCRIPTION:

GATCTGCTGA TTGCATTATT TTAATTTGCT TTTCTGGGAA AGCAGTTTTG CTAAAAGCTG 60  
TACAGACTTT TNCTTTTGTA CCTAGCAGTA CTTTATATAG TATAGCTTTG GGCCATGTAG 120  
CATTTTAAGA CTCAATTTTA AAAAATNATT AATCTGTTGC TGA CTCTTAA TTCCTATTTC 180  
AATATGTGTT TCCTTGAAGA ATTCAGGATA CAACTTCTTG TGTATGACAG CTTTCCTTCA 240  
CACACTATTT TNGTGGGTGT GTATATATCT GATTGCGGAA GAATTTAAAA AACACATAGC 300  
TTTTNAATTN GTTTGAAACA GACTTCTGC CTGTGACATT TNNGCNTTTA NCCAATTAAA 360  
GAAGCCAATG GCATTTTNGG TTTTATATNG TGTTTTCCAC TAGTATATCC CTGTGGATT 420  
GTTTGTGCCC N 431

SEQ ID NO:2834

00996

LENGTH:429

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03375

SEQUENCE DESCRIPTION:

```
GATCCCATGG GTGGCACATT GGGACTTCTN TCCCTCCCCC ATCTACACAG AAGACTGTCA 60
CCATGCTGAC AGAAGCCTGT CCTTGTAAAG CCCAGCCTTC CAGGGGAACA CTCAGACATG 120
TTCATTCTCT TCCTGCTTCT GCTCTGGGCC GGTGGGTGGC TCTCAGAAAA TACTTGCTGC 180
TGGCAAAAGG CCTGTACTCA GGCATTGCTT TTGACTTGAT GTTGCCAAGG GACTGAGGCC 240
ATTGGCAGGC TTAGTACCAC CTGCTCCTCA TCTTAGGAGT CTCCTTTTCA AATAATTAGG 300
CTCTGTTCCC ATTTTAAAC TCTGATATTG GGCTTCACCT GTGACTGGAC ACTTTACTAG 360
AGGCCCATTT NCACTAAACA NTAAATCTA AATAAATTGG AAGGAATAAC AACNACAAAG 420
GGNTAGAAA 429
```

SEQ ID NO:2835

LENGTH:427

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03376

SEQUENCE DESCRIPTION:

```
GATCTGGGCT TCCTNACTTC TGGAGAAGTG GCCATCCCAT GCCACCTTT NCCATGGAGG 60
AGTGGGCCCT GCCAGCTGCC ACAGCTGCAT GACCTGCTTC CCCACCCAC GGTGTCGTTT 120
TNTTTTNAAG GGTCACCTGT CCTCACTCAC CCAGCCAGCC CTTCAGGTGC NTTCTACTCC 180
CAGTGCCAAA GCCAGACCAC TGGGGTTTCC TGCTGCAGGA ATTGGGGGCT GGGAACAGCA 240
GAGGGGATAG AAGTNTGGTG GAGGTGGAGT GGGCACGCNT TAGCCTACGG AAAGGNCCAT 300
TTTTTGGGNC CACTGAGCTG CACTGGGATT TTTCANTTCT GGNCTGANT NCCTTTAGGG 360
NAAATAACAC AGCAGGACCN CGGTGGGGAT TTAAAGNACT TTTTTTNNNA GATTNAAANG 420
GNTTCTN 427
```

SEQ ID NO:2836

LENGTH:416

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03377

SEQUENCE DESCRIPTION:

```
GATCCTGATG CTGCCAGAGC CATTGTGGAT GCTTTACCAC CACCCTGTGA ATCTGCCTGC 60
ACAGTACCAA CAGACGTGGA TAAGTGTTTC CATCACCAGA AAAACTAATG AGATTCTCT 120
GGAATACANG CTGATATTGC TACATCGTGT TCATCTGGAT GTATTAGAAG TAAAAGTAGT 180
AGCTTTTCAA AGCTTTAAAT TTGTAGAACT CATCTAACTA AAGTAAATTC TGCTGTGACT 240
AATCCAATAT ACTCAGAAAT TTATCCATCT AAAGCATTTC TCATATCTCA ACTAAGATAA 300
CTTTTAGCAC ATGCTTAAAT ATCAAAGCAG TTGTCATTG GAAGTCACTT GTGAATAGAT 360
GTGCAAGGGG GNGCACATAT TGGNTGTATA TGTTNCCNT ATGTTAGGGG ATAAAN 416
```

SEQ ID NO:2837

LENGTH:398

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03378

SEQUENCE DESCRIPTION:

```
GATCAAAGAT GAGGCCACAA GGACACCAGC AACTGAAGAG GCTGCCTACT TGGTATCAAG 60
ACTGAAGGAG AACTACGTTT TGCTGAGCAC TGATGGCCCT GGGAGGAACA TCCTGAAGTT 120
TAAGCCCCCA ATGTGCTTCA GCCTGGACAA TGCACGGCAG GTGGTGGCAA AGCTGGATGC 180
CATTCTGACT GACATGGAAG NGAAGGTGAG AAGTTGTGAA ACGCTGAGGC TCCAGCCCTA 240
AGCCAGCCCT GCTCTGCCTA AGTGTACTCC AGAAGAACT CATCTCATCC AAATACACGC 300
TATTGAGAAG GCGAGCCTGA CCTCCCTCTT ACAGATAAAG TCAGCTTTCA GAGGCTCAGG 360
GTGGGGGGGC CTGCCCAGAG CCATAATGCT ACCCACCN 398
```

SEQ ID NO:2838

LENGTH:408

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03379

SEQUENCE DESCRIPTION:

```
GATCGCACAC ATGCTTTGTT TGGAATATGG AGTGAACACA ATTATGTACC AAATTAACT 60
TGGCAAACCTT NCTATTGCCT GTCCCATGTG CATCTNATTT AAAATTTCCC CCATGGAAAT 120
CACTCTCCTG TTGACTATTT CCAGAGCTCT AGGTGTTTAG GCAACGTGTG GTGCCTGAG 180
ANGGCCATAG CGCCATCATG GGCTGATTTT AATTACCAGG TCCCCAGAA GCAGGTGGGA 240
GGCTCTGCTT CCTGCTGGCC GTTCTGCAGC CTGGACCTGT GGACCCTGGT TGTAAAGNGT 300
AAATTGTTTT CTTANGGAAA CCAGTGTCAC CTTNTNTNAA CCTTTAAANT TAAAAAATAN 360
TTTGGGGGAA NAAATTNCNG NNACNGGAGG GTTAAAATTT ANCNANN 408
```

SEQ ID NO:2839

LENGTH:388

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03380

SEQUENCE DESCRIPTION:

```
GATCCACCAG CTGAGCAGGG CGGGGCTGAG TAAATGCCGG CTTACCATCT CTACCATCAT 60
CCGGTTTAGT CATCCAACAA GAAGAAATAT GAAATTCAG CAATANGAAN TGAACAAAAG 120
ATTGGAGCTG AAGACCTAAA GTGCTTGCTT TTTGCCCGTT GACCAGATAA ATAGAACTAT 180
CTGCATTATC TATGCAGCAT GGGGTTTTTA TTATTTTAC CTAAAGACGT CTCTTTTGG 240
TAATAACAAA CGTGTTTTTT AAAAAAGCCT GGNTTTTCTC AATACGCCTT TAAAGGTTT 300
TAAATTGTTT CATATCTGGT CAAGTTGAGA TTTTTAAGA ACTTCATTTT TTAATTTNGT 360
AATAAAAGTT TTNCAACTTT GATTTTAN 388
```

SEQ ID NO:2840

LENGTH:80

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03381

2153480

## SEQUENCE DESCRIPTION:

GATCTTGCTG AAAGTGTTTC TAAAGATAGC ACCACTTTTT TTTNAAAGC TTTTATATAT 60  
NAAAAAACGT ATCATGCAAA 80

SEQ ID NO:2841

LENGTH:384

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03382

## SEQUENCE DESCRIPTION:

GATCTTGCTC TAGCCTTTTN ACTTTTGCAA TTTCAGTATC TTCATCTCTA AACTAGGGAA 60  
ACACTNGGAT TCTTCTTAG CTGTGGGGGA AGGTATTGG TTAGATGACT TTGAATGAAT 120  
AGACTGCTGT GCTGAAAGAG CTTTATCACA CTGTCTCAA GTATGTAAAG ATACATAGGT 180  
GGATGCTCTT ACTGCAGCAG TCATGAATAC ATTTTAGCC ATTTACCTAA GGAAAAAGAC 240  
AGTTTTCTA GGTACCATGA AGGAAGATTG ACCCTGTTGG TATGCCTGTG GGGGTGGGAT 300  
GTGAGTGGGA CTGATAAACT GATACTTTG GTTCGTATGT ACATACTGGN AGAATCTTCA 360  
TANTAAATGN GACTACACAA CAAA 384

SEQ ID NO:2842

LENGTH:376

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03383

## SEQUENCE DESCRIPTION:

GATCCAGGGC AAGGCCATTG GGATATTCTG AAACCTGAAT ATTTGTTTT GTGCAGAGAT 60  
AAAGACCTTT TCCATGCACC CTCATACACA GAAACCAATT TTNTNTNTNA TACTCAATCA 120  
TTTCTAGCGC ATGGCCTGGT TAGAGGCTGG TTTTTCTCT TTTCTTTGG TCCTTCAAAG 180  
GCTTGTAGTT TTGGCTAGTC CTTGTTCTTT GGAAATACAC AGTGCTGACC AGNCAGCCTC 240  
CCCCTGTCCC CTCTATGACC TCGCCCTCCA CAAATGGGAA AACCAGACTA CTTGGGAGCA 300  
CCGCCTGTGA AATACCAACC TGAAGACACC GTTCATTGAG GCAACGNACA TAACAGNAAA 360  
TGAAGGTGGA CANGCN 376

SEQ ID NO:2843

LENGTH:370

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03384

## SEQUENCE DESCRIPTION:

GATCCCAAAC CTAGCCCCT AGTGGGACAA GGACCTGACC CTCCTGCCCG CATAACAAC 60  
CCATTTCCCC TGGTGAGCCA CTTGGCAGCA TATGTAGGTA CCAGCTCAAC CCCACGCAAG 120  
TTCCTGAGCT GAACATGGAG CAAGGGGAGG GTGACTTCTC TCCACATAGG GAGGGCTTAG 180  
AGCTCACAGC CTTGGGAAGT GAGACTAGAA GAGGGGAGCA GAAAGGGACC TTGAGTAGAC 240  
AAAGGCCACA CACATCATTG TCATTACTGT TTTAATTGTC TGGCTTCTCT CTGGACTGGG 300  
AGCTCAGTGA GGATTCTGAC CAGTGACTTA CACAAAAGGC GCTCTATACA TATTATAATA 360  
TATTCGCTTN 370

00999

SEQ ID NO:2844

LENGTH:367

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03385

SEQUENCE DESCRIPTION:

```
GATCTGTCAT CTGGTGCTGC CAGCTGTGCT CACTCTGGTT TTCTGCTCAG GGTCTGAAGC 60
AGCTGCTGTC TNCCTCCTCT GCCCCATCC CCTGGCTCTC CCCTGGGCAC AGTGCCACTC 120
CCTTGGAAGG GAGGGAACCA CCCGTNAGCC CCAGGGCTTG GNAAGCCTGA GCGGTGNCT 180
CTGCCTCTCC CTGCCCCCAG CACAATTGGC AGAGATGAGG CGGGTGGTGG ACGGCTGGGG 240
GTGTCGTGGC AGGGTCTNGC ACAGGNCAT GTCCTGGCTG TAACCCAGGC AGTGGGAGGT 300
CTGCAAGCCT GGTATGGCC TTCACAGCAN GGTNCCTGTT GGACAGACAT ATCTGNATAT 360
TTATNAA 367
```

SEQ ID NO:2845

LENGTH:366

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03386

SEQUENCE DESCRIPTION:

```
GATCTCCAAC ACTATCCGAT AAAGTAGAAG CAACTGAGGT ACCGTGAAAG AGAAAGGAGC 60
TGGAAGTGAG AAAAAGCAGA GGATTCGGAC GGAGAGCGCG AGGACTCGGC GGCTGAGCGC 120
GCCCCAGAGC AGCTAGAGGC GCTGTCAAC AAGACTATGC GCATTCGCAT GACAGATGGA 180
CGGCACTGG TCGGCTGCTT CCTCTGCACT GACCGTGACT GCAATGTCAT CCTGGGCTCG 240
GCGCAGGAGT TCCTCAAGCC GTCGGATTCC TTCTTGCCG GGGAGCCCCG TGTGCTGGGC 300
CTGGCCATGG TACCCGGACA CCACATCGTT TCCATTGAGG TGCAGAGGGA GAGTCTGACC 360
GGGCCN 366
```

SEQ ID NO:2846

LENGTH:365

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03387

SEQUENCE DESCRIPTION:

```
GATCCCCCA AGGNGAAGTG TGAGACAATG GTCTATCACC CCAACATTGA CCTCGAGGGC 60
AACGTCTGCN TCAACATCCT CAGAGAGGAC TGGAAGCCAG TCCTTACGAT AACTCCATA 120
ATTNATGGCC TGCAGTATCT TTNCTGGAG CCCAACCCCG AGGACCCACT NAACAAGGAG 180
GCCGCAGAGG TCCTGCAGAA CAACCGGCGG CTGTTTGAGC AGAACGTGCA GCGCTCCATG 240
CGGGTGGCT ACATCGGCTN NACCTACTTT NAGCGCTGCC TGAATAGGG TTGGCGCATA 300
CCCACCCNNG GCCACGGCCA CAAGCCCTGG GCATCCCCTG CAAATANTTN TTGGGGGGCC 360
ATGGN 365
```

SEQ ID NO:2847

LENGTH:364

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03388

SEQUENCE DESCRIPTION:

GATCTAGAGT ATGTTGAAGA AGATGGACAT GTGGTGGTAC GAAAACAATT CCCCTGTGGC 60  
CTGCTGGACT GGGTGAAC AGAACAGGCT AAGGCATACA GTTCTTGACT TTGGACAATC 120  
CAAGAGTGAA CCAGAATGCA GTTTTCCTTG AGATACCTGT TTTAAAAGGT TTTTCAGACA 180  
ATTTTCAGA AAGGTGCATT GATTCTNAAA TTCTCTCTGT TGAGAGCATT TCAGCCAGAG 240  
GACTTTGGAA CTGTGAATAT ACTTCCTGAA GGGGAGGGAG AAGGGAGGAA GCTCCCATGT 300  
TGTTTAAAGG CTGTAATTGG AGCAGCTTTT GGCTGCGTAA CTGTGAACTA TGGCCATATA 360  
TAAN 364

SEQ ID NO:2848

LENGTH:363

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03389

SEQUENCE DESCRIPTION:

GATCTGGGGA GGCAGGCATT CCTGAAGGGA ACTAGAGGTG TTACAGAGGA CCCTTACGTG 60  
AGAAATAGCT GAAAAGGGCA CTCGCAACCC TGGGCTGGGG AGGAGGAGAG AGTCCCAGAG 120  
CTCATCCCC CTGCTGCCCA GTGCAAACCA CTTNTCCATG CTGCAAAGGA GAAGCACAGC 180  
TCCTGCCAGG GTGAGCAGGG TCAAGCCTCT TATTCCAGGA GAAGGGGGCT CTGCCCAGGC 240  
CCTACTACCN ATTGTNCCCT TCCTCTTCCT GCCCTTGGA CCCCCTNCCT GTCCAGGGC 300  
CCTTCNAGCC CATTGCTGCC AAGGTGGAGG GANGGATAAA GNCACCTCTG GGTTTTGAAG 360  
CCN 363

SEQ ID NO:2849

LENGTH:361

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03390

SEQUENCE DESCRIPTION:

GATCTGGGTG TGGCCAAAA CAATTTNTT TATTCTGTCT ATCAAATAGT ACTTCTACCA 60  
CTGTTTGGAG AAAATTGAAG AAAAGAATAA GATGATTAAT TGAATTCTCT AAAAGAACAT 120  
ATTTTAAGAG ACAGAACTTA GACATAACCA AGTAGTTGTA TACCTGATTG TAACAATCAT 180  
CTTTTATAAA AGCAAAATTA TGCATAAATG TAAACACCC CTAACAAAG GGAACAAATG 240  
ANTTTTGGT TATATTGTTT TCTTGGCTCA AAGTATCAAT TTATTATTAT AATAGAAATT 300  
TATAAGTTGC TAGAAAGTCT ATATTTTAA CGCACGGAAT AAAANTATGT TTTCTATTAA 360  
A 361

SEQ ID NO:2850

LENGTH:355

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03391

## SEQUENCE DESCRIPTION:

GATCTGTCTC CAAGACCTTG GCCTCTCCTT GGAGGACCTT TAGGTCAAAN TCCCTAGTCT 60  
 CCACCTGANA CCCTGGGAGA NAAGTTTGAA GCACAACTCC CTTAAGGTCT CCAAACCAGA 120  
 CGGTGACGCC TCGGGGACCA TCTGGGGCAC CTGCTTCCAC CCGTCTCTCT GCCCACTCGG 180  
 GTCTGCAGAC CTGGGTTCCC ACTGAGGCC TTTGCAGGAT GGAACACGG GGCTNGNAGG 240  
 AGCTTTTGTG TGCCTGGTAG AAATATTTC TGTCCAGTC ACATTGGCCA TCACTCTTGT 300  
 ACTGNCTGCC ACCGNGGAGG ANNCTGGTGA CAGGNCAAAG GCAGTGAAG GAAAN 355

SEQ ID NO:2851

LENGTH:344

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03392

## SEQUENCE DESCRIPTION:

GATCTAGTTC TACGTATTAC ACAGGTGTAA TATCTGTGAG TGTAATAAC TGGAACGTGA 60  
 CACTGATTAA CATGNCAGTT TCTCTTTGT TGTCTTATC TGTACTGTAT TATAGTATGT 120  
 GGGTATAAAT ATCTACAAGT ATACACACAT ATGTNCTNGT ATTCCACTAT TGTAACCTGG 180  
 AAGAAAGACT ATGNATNCCC TNTTNAATT CCGTACTGGT ATNGTGTTA TTTAAAAAGC 240  
 AAAATNCGGC TCTATTTAGT TGTATAATAT TAGAGGGTAC TNNGCTTGN CACAATTCCA 300  
 AGTGGCCTTA GAGCATTGTT TAGCTNNCCG AAGTATATAT AANN 344

SEQ ID NO:2852

LENGTH:341

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03393

## SEQUENCE DESCRIPTION:

GATCTATGAG CCTGTNTNGG ACAGCCAGAT GGTCAATCATA GTCACGGTGG TGTCGGTNTT 60  
 GCTGTCCCTG TTCGTNACAT CTGTCCTGCT CTGCTTCATC TTCGGCCAGC ACTTGCGCCA 120  
 CNGCGGATGG GCACCTACGG GGTGCGAGCG GCTTGGAGGA GGCTGCCCCA GGCTTCCGG 180  
 CCATAGCAAC CATGANTGGC ATGGCCACCA CCACGGTGGT CACTGGAAC NAGTGTGACT 240  
 CCTCAGGGTT GAGGTCCAGC CCTGGGTGAA GGACTTGTA CAGGCAGCAG AGACTTGGA 300  
 CATTGCCTTT NNTAGCCCGA NTACAAACAC CTGGACTTAA A 341

SEQ ID NO:2853

LENGTH:567

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03394

## SEQUENCE DESCRIPTION:

GATCTCAAGA CCAAAGACAG ATGTCAGTGG GCTGCTCTGG CCCTGGTGTG CACGGCTGTG 60  
 GCAGCTGTTG ATGCCAGTNT CCTCTAACTC ATGCTGTCTT TGTGATTAAA CACCTCTATC 120  
 TCCCTTGGGA ATAAGCACAT ACAGGCTTAA GCTCTAAGAT AGATAGGTGT TTGTCCTTTT 180  
 ACCATCGAGC TACTTCCCAT AATAACCACT TTGCATCCAA CACTCTTCAC CCACCTCCCA 240  
 TACGCAAGGG GATGTGGATA CTTGGCCCAA AGTAACTGGT GGTAGGAATC TTAGAAACAN 300

GACCACTTAT ACTGTCTGTN TGAGGCAGAA GATAACAGCA GCATCTNGGN CCAGTCTCTG 360  
 CCTTAAANGG AAATCTTTAT TAATCACGNA TGGTTCACAG ATAAATTCTT TTTTAAAAA 420  
 AANCCCANNC TCCTNGGGAT GCACANCCTG TCAAGNGTCT TTTTACACAC AANTTTCAGG 480  
 TTTNNCATCA CGGGGCTTTG ANTTNAGGA AATNAAAGGN GGGACAAATT TNGTTNGTTT 540  
 ACNCTATGGT NCTTTNNTAA NAAACNN 567

SEQ ID NO:2854

LENGTH:349

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03395

SEQUENCE DESCRIPTION:

GATCTTTACT TTTTACTTT TTATTCATCT TTGTGTTTTT ATTTATCTAA AATGGGTATT 60  
 GATTTTAAGG ACGGTTTTGA AAAAGAAAAG TGTTGGGAAT GAAGCAAGTG ATTGATTGGA 120  
 AAACATACTG AATGGAAGAA ATATTTAGAT TAAAAATGAG GTAGGTTGAA GTTCTNCTC 180  
 TGAAATNATA GATAAATGGT GAAGATAAGG CTTATTGTGA GGNITCAGTG AGGTAATATA 240  
 TGCAAAGTAC TTACAATGTT CTGGCACATA GTAATTNATT NNGANAATCG AGCACCCCTTA 300  
 ATTACCTAGA ATGCAGGGTT GTTAGTTTTT NGGTTGACTT TTGTTTTNN 349

SEQ ID NO:2855

LENGTH:334

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03396

SEQUENCE DESCRIPTION:

GATCCGCTGT ATTGTGGAGT ATCAGAACAA GGGCCGCGGG AACGAGNGCG TGCAGTACCA 60  
 GCATGTGTTA CATAGAAATC TCATTTATTT GGCTACCATT GCAGATGCCA GTCCAACCAG 120  
 CACTTCAAAA GCAATGGAAT AATCTTCAA AAGCAATAGA ATAATCTTCC ATTTGGCTGT 180  
 CGTGAGGAGT AATTGAATGT AATCCATCTC TTACAAAATG GAGACAGGGT CTTTACCAAC 240  
 TCAACTGGTT AAAACATGAN TGAAACCTCT GTGGCTCTTT CAAAACGTGG AAAATGTGAA 300  
 GAANGCTACT TAACCTNGGC TGTATTCTCA TGGN 334

SEQ ID NO:2856

LENGTH:332

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03397

SEQUENCE DESCRIPTION:

GATCGGCCTG CTGCTCCGCA ACTTCGACCG CTACGGCGTG GAGTGCTGAN GGA CTCTGCC 60  
 TCCAACGTCA CCACCATCCA CACCCGGAC ACCCAGTGAT GGGGGAGGAT GGCACAGTGG 120  
 TCAAGAGNAC AGACTCTAGA GACTGTCAGA GCTGACCCA GCTAAGGCAT GGCACCGCTT 180  
 CTNTCCTTTC TAGGACCTCG GGGTCCCTCT GGGCCAGTT TCCCTATCTG TAAATTGGGG 240  
 ACAGTAAATG TATGGGGTCG CAGGGTGTG AGTGACAGGA GGCTGCTTAG CCACATGGGA 300  
 GGTGCTCAGT AAAGGAGAGC AATTCTTACA AA 332



SEQ ID NO:2857

LENGTH:331

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03398

SEQUENCE DESCRIPTION:

```
GATCCTGGGT GTNTNTGTAA GGGTNTTGCC AAAGGAGGTT AACATTGGAC TCANTGGGCT 60
GGGGAAAGGC AGACCCACCC TTAATCTGAG TGGACACCAT CTAATCAGCT GCCAGCGAAA 120
ATAAAGCAGG CAGAAAANTG AAAAANNTAG ACTGGCCTAG CCTCCCAGCC TACATCTTTN 180
TCCCATGCTG GATGCTTCCT GCCCTTGAAA ATTGGACTCC AGGTTCTTNA GTTTTGGGAC 240
TTGGACTGGC TCTCCTTCCT CCTCAGCCTG CAGACATCCT ATTGTGGGAC CTTGTGTTTC 300
TGTAAGTTCA TACTTAATAA ACTCTCCATA N 331
```

SEQ ID NO:2858

LENGTH:351

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03399

SEQUENCE DESCRIPTION:

```
GATCGAGTCT ATACGCTGAA GAAANNTGAC CCGATGGGAC AACAGACCTG CTCAGCCCAT 60
CCTGCTCGGT TCTCCCAGAG TGACAAATAC TCTCGACACC GAATCACCAT CAAGAAACGC 120
TTCAAGGTGC TCATGACCCA GCAACCGNGC CCTGTCCTNT GAGGGTCCCT TAAACTGATG 180
TCTTTTCTGC CACCTGTTAC CCCTCGGAGA CTTCGTAACC AAACNTTTCG GACTGTGAGC 240
CCTNATGCCT TTTTGCCAGC CATACTCTT TGAGCATCCA GNNTNTNGTG GCGATTTGAT 300
TATGCTTGTT GTGAGGNAAT CATGGGTNGG CNTCNCCNT TAANGGGGTG N 351
```

SEQ ID NO:2859

LENGTH:330

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03400

SEQUENCE DESCRIPTION:

```
GATCCTGGGG GCCTGGGTTG GGGGCTAGGG AGACGCCATG TGATGGACAC TCCAGGGACA 60
CACAGCCTAG CACAGCAGCT TATAATGGGC TCTCCGGGGC CATTTGCAAT AACAGCTGCA 120
ATTCCCTGGA TAGACGAGTT GATTTCTCC CTCTGCCCCT CCCCAGCCA TGCCAGCTGG 180
CCTTTGTAAG TGCAGGAAAC CGAGTAGAAA ATGTGACCCT CCAAATGGAG AAGCTGCAGG 240
CTTTGCCATT GTGAACCATG GTGAAGTGCT TGGAACATAC TGTTCACTCA CTCTAAAGGN 300
GCTGAGACTG TGCTGTTGTT CTCGTTTTTN 330
```

SEQ ID NO:2860

LENGTH:330

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03401

SEQUENCE DESCRIPTION:

GATCTGGAAA GGACATGACT TCTGAAATAG CCGCTGCTGG GTTTTAAAAG CTGAGGTCTC 60  
 TCAAAGTGTG GAGGAGACGT TGCCGTCAGN GGGAGCCAAG TGCCGGGAAG ATGTCTATTT 120  
 TTTTCCTTGT GTATTGAAAA TCATGATGTT TGTTATGACT GCTGATGCGA TTGTNTTTGT 180  
 AAATNTNATT GTGGCATATA CAGTATTGTC ATACAGTTGA AGAGAAACAA TGTTTCCTAA 240  
 TGTAAGTNCT CTGAAATGT TGACACTGTA TATATATATA TNAGGATAGT TTGTNTTTCN 300  
 NTGTTTGGGG TTTNNNTTN TTTGNGTGN 330

SEQ ID NO:2861

LENGTH:396

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03402

SEQUENCE DESCRIPTION:

GATCTTAAAC CCAAAGTACG AGAAATGTTT CTGTTGAATG TAATGCTACA TGAATGCTTG 60  
 ATTTATCAAG CGCCAAAAAG GCATTGTATA GTAGGAAATG TAAGTGGGGT GGCTTATGGC 120  
 TTCTTTATCC TCTGATTCTA GCACTTTCAA GTGAGCTGTT GCGTACTGTA TCATATTGTA 180  
 GCTATTAGGG AAGAGAAGAA TGTTGCTTAA GAAAGAACAT CACCATTGAT TTTAAATACA 240  
 AGTAGCAGGG TATTGCCTTT GATTCAACTG TTTTAAGTCC TCATTTTCT CAAACTAAGT 300  
 GCTTGCTGTT CCCAAATATG GCAAGGNATA GCTTTTACAC TTTTCCCTG CCAACANNTC 360  
 NTNGATTGGC TTGCAGANA TNNAGGTTTG ANTTGN 396

SEQ ID NO:2862

LENGTH:330

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03403

SEQUENCE DESCRIPTION:

GATCCAAAGT GACCCACCA GGGGACAGCC AGAGGAAGGG GACCATGGGG TATCCNNAGT 60  
 GTCCTGGTCT ATCACCAG CTTCTTTGTC CCCAGTACC CCCAGCCAG CCAGCCAATA 120  
 AGAGGACACA AATGAGGACA CGTGGCTTTT ATACAAAGTA TCTATATGAG ATTCTTCTAT 180  
 ATTGTACAGA GTGGGGCAAA ACACGCCCC ATCTGCTGCC TTTTCTATTG CCCTGCAACG 240  
 TCCCATCTAT ACGAGGTGTT GGAGAAGGTG AAGAACCCTC CCATTCACGC CCGNCTACCA 300  
 ACAACAAACG TGCTTTTTTC CTNTTTGAAG 330

SEQ ID NO:2863

LENGTH:329

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03404

SEQUENCE DESCRIPTION:

GATCTTATTT TCTGAGAAAT TGATAGCAAA TATGCCAGAA AGTGGACCTA GTTATGAATT 60  
 CCATCTAACC AGACAAGAAA TAGTATCATT ATTCAACGCA TTTGGAAGAA TTTCTACAAG 120  
 TGTGAAAGAA TTAGAAACT TCAGGAACCT GTTACAGAA ATTCAATAAA GAAAACAAGC 180  
 TGATATGTGC CTGTTTCTGG ACAATGGAGG CGAAAGAGTG GAATTCATT CAAAGGCATA 240  
 ATAGCAATGN CAGTCTTAAG CCAACATTT TATATAAAGT TGCTTTTGTG AAGGAGAATT 300

ATATTGTTTT AAGTAAACNC ATTTTAA

329

SEQ ID NO:2864

LENGTH:329

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03405

SEQUENCE DESCRIPTION:

GATCACTTCA GCTGCCTGCT GTGGACAAAG AACATCAAAT TACAGCATCA CGAGTGCTAT 60  
TNTTGCCTGT GGTGGTCTCC CTGTCCAAGC GGGNCCGCTT TGCAGAGACC AGAGGCATAT 120  
CGCGGGCTTGA GCTGAAAATG CATTNTTGC AGCTTAGGTT GAATTATTTT NCGTTTGCTC 180  
TTTCTTCTAC ACGCGCCTGA TGGATAGTGA ACCTATTCAT CAAAAAAGTG CACTGCTCTN 240  
CTGTCTATTG TACCGACTTA ACCTCTTCCA CCCAAGTCCG CATCTGTGTG TATCATCAAT 300  
AAAGTTGGTN GTGCCTTGGN TTGGGCAAA 329

SEQ ID NO:2865

LENGTH:328

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03406

SEQUENCE DESCRIPTION:

GATCGGCGTG ACCACCCCTT GCCGGAGGTG GCCCATGTNA AGCACCTNTT TGCCAGCCAG 60  
AAGGCACTGA AGGAGAAGGA GAAGGCCTCC TGGAGCAGCC TCTCCATGGA TGAGAAAGTC 120  
GAGTTGTATC GCATTAAGTT CAAGGAGAGC TTTGCTGAGA TGAACAGGGG CTCGAACGAT 180  
NTGGAAGACG GTTNTNGGGC GGTNCCATGT TCTTTAATCG GTTTNAACGT GCTCGTTNCC 240  
CCTNTGGAAA AAGGNCTTNT GTTTACCGGC CCCCTTCCCG AAAAGTTTTN ACAAANGGT 300  
GGGGTTGCCC AAGNAGGCC AANAGGNN 328

SEQ ID NO:2866

LENGTH:327

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03407

SEQUENCE DESCRIPTION:

GATCTACAGA GTTAGAAATT CGAAACTAT TCCAGGACTA ATTCTTAATC GGCATTATTT 60  
ATACAAGAGG TCAAGTAACA TTTACTAGCG CAATACTGCA CTTGTAAATG AATTATAAAC 120  
GCTCTTCTGG AATATATTTA AATAACCATT AAAGAACTGC TTATTCATNC TGGACACTGC 180  
ATGTNGATGT TGAATCAACT GATGCCAGCA GAAAGCTATT TTGATTTGTG AACATACTGC 240  
CTTATTTAAA GGGTCCTGAT TGCTTGATT TTANGNCATT CATTAAAAAG AAACCAGGAA 300  
ACACTTTTGA ANTAACAGCA TANGGNN 327

SEQ ID NO:2867

LENGTH:327

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03408

## SEQUENCE DESCRIPTION:

GATCACCCTC CTCCCAAAAA GCAAGAGCTT GTTTATGGCT GAGGAATCGG CGGATTGTCT 60  
 GAATGACACA TATACAGAGC CCCCACGGAT TTCTNCACAC TCTGGGTCTG TGCTGGTGGA 120  
 ACATTGCCAA TNAGTTCTTA ATGAGGCACC TGTGTGTAAC TACATGCTTG GTCTTCTCTG 180  
 CAGAGAACTG AGGCTAAACT CTGTCCCTAC TTCTGTTTTT GCCCTGTNAT GTCGTAACGA 240  
 GGTGGGCCTT TTGAGGCCAT TTTAGTTTGA GTTCGAGCCA ACCACCTCTG GTTGGTTAGA 300  
 TGATTGAATA AAAAGGTTCT GAAGAAA 327

SEQ ID NO:2868

LENGTH:326

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03409

## SEQUENCE DESCRIPTION:

GATCCAATCA CCTCCACCA GGCTCCACCT CGAATACTGG GGATTACCAT TCAGCATGAG 60  
 ATTTNGGCAG GAACACAGAC CCAAACCATA CCACACACAT TATCATTGTN AAACCTTGTGTA 120  
 AAGTATTTAA GGTACATGGA ACACACGGGN AGTCTGGTAG CTCAGCCCAT TTNTTTATTG 180  
 CATCTGTNAT TCACCATGTA ATTCAGGTAC CACGTATTCC AGGGAGCCTT TTTGGCCCT 240  
 CAGTTTGCGAG TATACACACT TGCCANGTAC TCTTGGTAGC ATCCTGTTTG GTATCATNGC 300  
 ACTGGGTCAC ATTGCCTTAC CTAAAN 326

SEQ ID NO:2869

LENGTH:325

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03410

## SEQUENCE DESCRIPTION:

GATCTATGGA ACAGAGGAGG AGCGATGCAG TTGGGAGAGG AAGCTAGAAG GGTATGGTT 60  
 GGAGTTCTGT ACAGTGTGTA GTTCCGACA GGGAAAGAGG ATTCCTCCAA TGCGCCTAGA 120  
 GAGAAAGCCT GAGCAGGAGA TGATGCAGCA GAGGGGAAGG GCCCTGTGGT GCCGCCGCC 180  
 TTCCTTCAGC CTCCGAAGGT GATGGAAATG GAGAGTGGAG GACCAGGCCT CCAGCTGTNT 240  
 GGCCTNGCCN TTCACGCCTT AACACTAAGC CCACCTCCCC TTNTCTCCTT CCCAGCATTG 300  
 AGCCCTTGGT TGCCTGGGCC CAGGN 325

SEQ ID NO:2870

LENGTH:325

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03411

## SEQUENCE DESCRIPTION:

GATCTTCAGA AACCTTGCTA GGAGAAGTTA ATGAAAATAG AGTATCAATA GCATTGAAAA 60  
 AAACCTCTGA AATCCTTCAC GATATTGACT GTCTTCTATC AAACCTCTAAA AAGTGAAAAA 120  
 TGGAATTATT ACAACATATT ATTAAGTTT AAGGATGTTG TTTCAAGTGA CTGGTATAAA 180  
 ATTACTAGTA AGCCAAGATA TTGTACGTAT TACCCCGGCA CAATGATTGT GAAAGANCTG 240

ACATTTAACT TTGAAGGTAT TTTTAACTTG TACATTTTAA AAATATGTAT TTATATCTNA 300  
 NTANTAAATN TTTCGAAGTT TTAATA 325

SEQ ID NO:2871

LENGTH:325

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03412

SEQUENCE DESCRIPTION:

GATCCAAGCG GAGATTGACG CTGCAGCGGA NACTCATCGA CTTCTTCCGG TTCAATGCCA 60  
 AGNATGCGGT GGAGCTGGAG GGGCAGCAGC CCATCAGCGT GCGCCGAGC ACCAACAGCA 120  
 CGGTGTACCG GGGTCTGGAG GGCTTCGTGG CGGCCATCTC GCGCCNTAAC TTCACTGCAA 180  
 TCGGCGGCAA CCTGGCGGGG GCACCGGCCC TGATGCTTCG AGAGGGAGTT GTGACTCTGC 240  
 CTCTTTGCCA GATGACAAAA CTGAGACACA CAGCCGTGAC TTACTTGGCA AGACTGAGTG 300  
 ACTAGTAAAT AAATGATGGA GCAGN 325

SEQ ID NO:2872

LENGTH:323

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03413

SEQUENCE DESCRIPTION:

GATCCTCCTT CTAGCTCATC TGTAGATACT AGTAGTAGTC AACCAAAGCC TTTCAGACGA 60  
 GTAAGACTTC AGACAACATT GAGACAAGGT GTCCGTGGTC GTCAGTTTAA CAGACAGAGA 120  
 GGTGTGAGCC ATGCAATGGG AGGGAGAGGA GGAATAAACA GAGGAAATAT TAATTAANTG 180  
 GTCTGTAAAC AATAACAAC GTGAATAAGA TTATCAAATC TTTTTAGTG TAATGATTGT 240  
 CAAGTTTAAA ANCATTTTNN TATATAACCT GGTATACTCA TGTCAATATN CTTTATTAAT 300  
 AAAANGNTTT TCAGTGTCAT AAA 323

SEQ ID NO:2873

LENGTH:322

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03414

SEQUENCE DESCRIPTION:

GATCTGCCCC TCTCAGCCTC CCAAAGTGCT GGGATTACAG GTATGAGCCA CAACGCCCAN 60  
 CCATCATTTA TCTTTTTCAC TCATTTTTC ATGAGTATGC AGAGGAGTTT TCAAGAGGCT 120  
 ATCTGGTGTG ATATTGTAAT AGGCTGAATG CAAAAGCAGA TACAAGATTC CAGCTTTCGT 180  
 CTGTCATCAG ACATTGAAGA GATTTGGAGA AATGTAAAGC AGCAGTACTC TTCTCACTAA 240  
 TTTTGTGTGT GGTAGTTAG AAAAATGGTT ATTTNAGTG GGTTTTAATA TGTGAAAAAA 300  
 ATAAAATTAG CTATTTGCCA AA 322

SEQ ID NO:2874

LENGTH:319

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03415

SEQUENCE DESCRIPTION:

GATCACCTNT GCGGTGTTCC TNCCAAAACN GCATAGCCCC AATCTAATAT CATCCCGAGG 60  
 AAATACCAGA CACACGCAAG GGAAAGGACA TTCTACAAAG GAACGGACTC ATACTCTTCG 120  
 AAAAGTGTCA AGGTCATCTA CGACAAAAGA CTGAAAGGAC CCCAGTCGAA AAAAGNCAAG 180  
 ATGACAAANT GCAACGTTTC ATCCTAGACT GGATTCTGGA CCCAAAAAAT CCCCTTCTTT 240  
 TGTCAGAAAG GAAATTTGTG GAACAACCTGG CAAAATCTGG AGTTGGGTCT GCAGATTACA 300  
 CACTGGTATC GCAGCGAAA 319

SEQ ID NO:2875

LENGTH:320

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03416

SEQUENCE DESCRIPTION:

GATCTCCCTT CGTGGAGACG ACACCGGGGT CCTCCTGCCC ACCCCAGGGG AGGCCCAGGA 60  
 TGCTGATTG AAGGATGTAA ATNTNATTCC AGCCACCGCC TGACCATCCG CCATTCCGAC 120  
 TGCTAAAAGC GAATGTAGTC AGGCCCTTT NATGCTGTGA GACCTCCTGG AACACTGGCA 180  
 TCTNTGAGCC TCCAGAAGGG GTTCTGGGCC TAGTTGTCCT CCCTCTGGAG CCCNGTCCTG 240  
 TGGTCTGCCT NAGTTTTNCC CTNCTAATAC ATATGGCTGT TTTCCACCTG GNTAATATAA 300  
 CCANGAGTTT GGGCCGNAAA 320

SEQ ID NO:2876

LENGTH:308

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03417

SEQUENCE DESCRIPTION:

GATCTCTGCT GTGNCTCCCA GAGTTACTGC TGCCAGACTG AACTGGAAGG GGAGGATGTA 60  
 GGAGCCTGCA CAGCTCACAC CTA CTCTGCTGAG TGGGCATCTN CCTGAGAGTA 120  
 CGGGAATGTN AGGTGCTATT TTAAGCTGGC AAAACCAAAG GCTGTTTTNA TTCTCCTCCT 180  
 TACCTTGATG ACTATGGGGA GACCGACCAG GGA CTCTGCTGAG TGGGCATCTN CCTGAGAGTA 240  
 TGCAAAGAGC GATTCAAGAA GATTGAGAAG CTCTGGCACC AACACAGTGT CACAGNGGAA 300  
 NTTGGNCN 308

SEQ ID NO:2877

LENGTH:308

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03418

SEQUENCE DESCRIPTION:

GATCTTGACC ATGACAGTTT TNCACCTTTA ATGAAACGGG GAACCAAGAG GAACTTACTT 60  
 GTGTAACNA CAATTNCTGC AGAAATCCCC CTTCCTCTAA ATNCCCTTTA CTCCACTGAG 120  
 GAGCTAAATC AGAACTGCAC ACTCCNTCCC TGATGATAGA GGAAGTGGAA GTCCCTTTAG 180

GATGGTGATA CTGGGGGACC GGGTAGTGCT GGGGAGAGAT ATTCCTTAT GTTTATNCGG 240  
 AGAATTTGGA GAAGTGATTG ACCTTTTCAA GNCATTGGGA AACAAATAGA NCACANTATA 300  
 NTTTNNCN 308

SEQ ID NO:2878

LENGTH:307

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03419

SEQUENCE DESCRIPTION:

GATCTAGAAG ACGATTAAGG GAAGGTCGTT CTCAGTGAAA ATCCAAAAAC CAGAAAAAAA 60  
 TGTTTATACA ACCCTAAGTC AATAACCTGA CCTTAGAAAA TTGTGAGAGC CAAGTTGACT 120  
 TCAGGAAGCTG AAACATCAGC ACAAAGAAGC AATCATCAA TAATTCTGAN CACAAATTTA 180  
 ATATTNNNTT TNCTGAATGA GAAACATGAG GGNAATTGTG GAGTTAGCCT CCTGTGGTAA 240  
 AGGAATTGAN GAAAATNTAA CACCTTACAC CCTTTTCCAT CTTGACATTA AAAGTNCTGG 300  
 CTAACN 307

SEQ ID NO:2879

LENGTH:307

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03420

SEQUENCE DESCRIPTION:

GATCTTGAGG GCAGACAGCA GAATTCCTCT TATAAAGAAA ACTNTTTNGG AAAATACGTT 60  
 GAGGGAGAGA NGACCTTGGG CCAAGATGCT AAATGGGAAT GCAAAGCTTG AGCTGCTCTN 120  
 CAAGAGAAAA TAAGCAGGNC AGAGGATTTN CTCTGGACAG AGATGGAAGA GCCGGGAACA 180  
 GAGAAGTNTG GGAAGAGAT AGGAACCAGC AGGATGGCAG GGGNNNNGG CTCAAGGGTN 240  
 AGGAGGCCAG TGGGACCCA CAGAGTTNGG GGAGATAAAG GAACATTGGG TTTGCTTTGG 300  
 TGGCACN 307

SEQ ID NO:2880

LENGTH:305

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03421

SEQUENCE DESCRIPTION:

GATCTGCCGT GTCCTTATAA AGTGGATGAA AAATGTTTTG TACCCATCTG GAAAACCAAC 60  
 AACTTGAAAT CTCAGGTATT CCAGGTCCT GACATGAATT TGAAGATATA TCTATCTGTA 120  
 TGGATATATA TCTATATGTA TATAGATATA TAANTACAGA GAGATATCTG GCTTGGTTTT 180  
 AATTATGTNC TTAAATTTGT GTGCCAATAA TTGCATATAG ATTTNTTNC TTAAATATTT 240  
 GACTGTGGAA CATGCCATTT TAAATATGTN GTAAGGCCTG TNNTAATAAA ACGTTTAGTA 300  
 TGAAA 305

SEQ ID NO:2881

LENGTH:305

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03422

SEQUENCE DESCRIPTION:

GATCCACTGA TGGCTCCAGA CCCCACTTT AGCCATTGCA CGTGTGAAC TCCAGGTTGA 60  
 GCCTTTGCTG GAGCCGCCTG CAAGGNGCAT GTTTGACCAA TCCCCAGTGG AGGGGAGGGT 120  
 GGTGTTTCCT TTCTGGGACT TCCACAAGTT GAGAACAGAC CATGCTGCCC TGGGCAGTTC 180  
 TTGAAGGCTG TGAGAGTGGG CCTGACAAAG TTTATTCCTT TTTTTTTTC CATTNCCTTT 240  
 TATNATNATA ATTGTTTGAA ATNGNCAANT AAAAATNATG TATATTTATG ANGTCANCA 300  
 NGAAA 305

SEQ ID NO:2882

LENGTH:303

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03423

SEQUENCE DESCRIPTION:

GATCAGGAAA GTCATACTGT TCACTTTCAA GNTGGCTGTC CCCCCGCGG AGCCCCCCA 60  
 CCCCATATG TACAGATGAT ANTAGGGTGT GGAATGTCGT CAGTGGCAA CATTTCACAG 120  
 ATTTTATTT TGTTTCTGTC TNNANCNTT TTNCACTGT GCTAATAGTT ATATTCAGTA 180  
 CATGAAAAGN TACTACTGTG TTGAAAGCTT TTAGGAAAT TTTGNCAGTA TTTTGTACA 240  
 AAACATTTTT TTGAAAAAAT ACTGGTTANT TTATNCTATT TTAATTNGCC AATGTCAATA 300  
 AAN 303

SEQ ID NO:2883

LENGTH:375

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03424

SEQUENCE DESCRIPTION:

GATCACCGGA CACAATCCTG CAGAAGGACA CACGACTCTA TTTCCTACAG TGCGAAACTT 60  
 GTCATTCTAG ATGTNCTGTT GCCAGTATCA AAACCGGCTT CCAGGCTGTC ACGGGCAAGC 120  
 GAGCACAGCT CCGTGCCAAA GCTAACTAAT TTGCTAATCA CTGATTTTNC AAAGCTTGTT 180  
 GTGGAGATGT GGCTGGACAG GTTTGCCATC AGAGTGGATA TACCGTTGTA TAAAAACAA 240  
 GATAAAAAAG CTGCCAAGAT TTTTGGCGNG TGGTTGGTCT GAAGTCCTTG CAAGACGCTG 300  
 NTGCTCAAGC TGTTGACATA CTCATTGGCC TACTTTTAAC ACCTGTCCAG AGGAAACGTG 360  
 NTATGGGGGT AAGTN 375

SEQ ID NO:2884

LENGTH:301

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03426

SEQUENCE DESCRIPTION:

GATCAGATAG GAGCACAAGC AGGGGACGGA AAGAGAGAGN CACTCANGCG GCAGCATTCC 60



CTNCCAGCCA CTGAGCTGNC GTGCCAGCAC CATTCTGGT CACGCAAAAC AGAACCCATT 120  
 TAGCAGCAGG GAGACGAGAA CACCACACAA GACATTTTTC TACAGTATTT CAGGTGCCTA 180  
 CCACACAGGA AACCTTGAAG AAAATCAGTT NCTAGGNNNN GCTGTTACCT CTGTTTACA 240  
 GTTTATATAT ATATGATAGA TATGNGNTAT ATATATAAAA GGTACTGTTA ACTACTGTAA 300  
 A 301

SEQ ID NO:2885

LENGTH:297

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03427

SEQUENCE DESCRIPTION:

GATCGGGGGA GGGTAAATAA TGCAAAATTT GCACAGTGGA AGAAGGGGTC TCACAAAAG 60  
 CAATCCATCC TG TAGTATAG GTANNNGNT TGGGGGAAGC AGCTTCATT CTGGATGTTT 120  
 GGAACCCTTT AGCTTTGTTT TGGAAATGGCC CACCATTCTC ACTGGAAAAC AGTGGTCTGC 180  
 TGTGAAAGGC CAGCTCTCGG CAGCCCCTGT GGTTCAGCG CTGCCGCTCT GTGTCATTCA 240  
 GGTGTGCAC ATTGTTTTTC TTCTGACTTC CAGAAATAAA AGTGTTCCTA TGGGAAA 297

SEQ ID NO:2886

LENGTH:296

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03428

SEQUENCE DESCRIPTION:

GATCTGGGTG CCTTGGGAGA NCCAGTCCTT CCTTTNACC CACCCCAGGA AGATGGAGTN 60  
 CTCTTTNCTA GGCCCATGTC CTGCCAGCAA CCGGGATGCG TGGGCAACTG GACTCTGCAC 120  
 GGGGGTCTAC AGGTTGAGGG AGGTTGGTCA CAATNAGAAC CTCGGGGTTT GAGGTGGCCA 180  
 TGGGCAGACA GCCNNAAGGG AGGGAGGGTG TGGGTGTNCG TGTGTGCATG TCCTGGTNTG 240  
 TAAGGGGGAA AGGGTCTTTC CTGGTTTTAT TTAAATAAAG TAGTTTATGT AACAAA 296

SEQ ID NO:2887

LENGTH:296

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03429

SEQUENCE DESCRIPTION:

GATCTGTGCN GTGGTCCTNA GGCAGTTGTN TCCACACAAG TACTACTTCC TCGTGGGCTA 60  
 CAGTNAACT TTGCTGTCCT ACTTTAACAA ATGTCCTGTG CGACTCCACC TCCAAACTGT 120  
 GCCCTCAAAG GTTGTGTATA AGTACCTCTA GAACAATCCC CTTTTNCCA TCAAGCTGTA 180  
 GCCTGCAGAG AATGGAACG TGGGAAAGGA ATGGTATGTG GGGGAAATGC ATCCCCTCAG 240  
 AGGNCTGAGG CATAGTCTCT CATCTGCTAT TGANTAAAGA CCTTCTATCT TGTAAA 296

SEQ ID NO:2888

LENGTH:356

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03430

SEQUENCE DESCRIPTION:

GATCTACTCT GTATGGGTAC CAAAATCACC TTCTCTCTTC AAGTCAAAGT TGAATTTAGA 60  
 ACTTTGAATA CAGGTCAAAA AATGTAGAAA ATATCATTTT ATATTCCCTA ATCTATATAG 120  
 CTGAAAAAGG GTTGTATTTT CTTAGCTGAA TATGAATACC TCTTAAACAT AAATTAGTTC 180  
 CTCTCCAGTG AAGTATCTTA TTTTACCAAT CCATTTCAGG AAAGAGGTTT TGCTGCCGTA 240  
 AAGGCAGAAA TTTTATTTTT ATCCCTTTTA TTTGAATGAG AGATTTGAAA ATCGAATTAT 300  
 GTAAATATTT CAATGCATCT GCTATTATTT TGTGGAGTTT ATTAAACTAC TTAAAA 356

SEQ ID NO:2889

LENGTH:293

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03431

SEQUENCE DESCRIPTION:

GATCCCAAAC CAAATCTTAG AATCANTTCA TTTAAAATAC TGAGCGGTAT TGANTACTTC 60  
 GAAGCAGAAC AGGCAATGTG CAGCCCTCAT TTATGAGAAA ACCCTCAGGA AACTCCAGG 120  
 GTGATGCTTG GNGAAGCTGT GAGTTGAGCT GAAGCTGGAG AACTTCCTCC AGAGCAAAGG 180  
 GCTTAAGAAA GAAAGANGAA CTCTAAGCTG GGTCTGCTAA CATCACTCCA GTTTAGATGG 240  
 NTCCTGTTTT TCCTTAACAN GTTGAGGCGT GGGTAGAGCA GGANTTGGTT TTN 293

SEQ ID NO:2890

LENGTH:289

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03432

SEQUENCE DESCRIPTION:

GATCTGAAAT AACATTAATT TGATTGTAAC CCTATTGGGG TTAGTTCCCA CCCTTTGTTC 60  
 CATCTTGAGC AGAGATGNCG TGCATTTCTT AACGTTTGGT CTCTATACAT TATACCATCT 120  
 GCTGAAGTTT AGCTTTGTGT GTGTGTATAT GTACCCATGT GTGCACTTTA AATATCAGTA 180  
 CAAACTGATA AACAATGTTT CTGGTTAATG TTGCAAAAAT GGAACACTGT ATTNACATA 240  
 ATTGATTTTC TACTCCTGCC CTGTGAATTA AGGCAGAGTT TTA CTGTAN 289

SEQ ID NO:2891

LENGTH:286

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03433

SEQUENCE DESCRIPTION:

GATCTTCCCA CACCAGCCTC CAAAATACT GGGATTACAG GCTTGAGCCT CCATGCCTGG 60  
 CCCAGGTAAC ATGTTTATTG AGCTGTACAT GCATATGAGA AATAAGAAAC TTTTTTTTCC 120  
 TACTATCATC TCTTAAATNT NGTNTTCTTT TTCTTTTGCT TCCTCTTCTT CTNTNCTATT 180  
 TNTNATAAT ATCATGCACA ACTATAACCT ATGGGAATNA TGTAGTAACA CAGATTATTC 240  
 ATCTTGTTAG AGTTGTATTA AAAATAAACA AGCATTTCAA ATAAAA 286

SEQ ID NO:2892

LENGTH:286

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03434

SEQUENCE DESCRIPTION:

GATCCAAGAC CAGGGTGGTT GGGGGCTGCC CCTGGCCGAG TCACTGAAGC GACTNATGTC 60  
CCTGTNTCCA GGACGANCTC CTCTCCTACT TTGGGACGCC CACGTGGCAG ACCGTGACCA 120  
TCTTTGTGGC GGNAGTGCTC ACCGCCCTCAC TCACCATCTG GAAGAAGATG GGCTGAGGCC 180  
CCCAGCTGCC TTGGACTGTG TTTTTCCTCG GGTAANNNGN GGCATTNTTC TGGGAGGGGT 240  
GGGGATTGGG GGACATGGGC ATTTTCTTA CTTTGTAAAT TATTGN 286

SEQ ID NO:2893

LENGTH:285

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03435

SEQUENCE DESCRIPTION:

GATCTGCNGG GGCNTGTNCA GCTGCAGCAT TCCTGAAAGA TTTCGTAAC CATCCTAAGT 60  
GGGCACATTT AGACATAGCA GCGTGATGA CCAACAAAGA TGAAGTCCC TATCTACGGA 120  
AAGGCATGAC TGGGAGGCC ACAAGGNCTC TCATTGAGTT CTTACTTCGT TTCAGTCAAG 180  
ACAATGCTTA GTTCAGATAC TCAAAAATGT CTTCACTCTG TCTTAAATTG GACAGTTGAA 240  
CTTAAAAGGT TTTTGAATAA ATGGATGAAA ATCTTTTAAC GGAAA 285

SEQ ID NO:2894

LENGTH:284

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03436

SEQUENCE DESCRIPTION:

GATCAGCTCT TTCTATTTTT ACTCGTAAAA ATTATGGAAA TAAATAATTT TGCTAACAAC 60  
TTTGAAATTT CAAACTTCTG GAAAAATGA AAATATTCAT TGTTCATTAT GAATTTAAAT 120  
TGTAAGGTAT GAATGTNATT TGTCTGTACA TCTTGTATCT TTTCCAAAA ATGATTCTGT 180  
ATCTTTTGGA AAAAAGCCGA GAGTTGAAGA TAGTATATTT CTGGTAGTAC TGAATATTTA 240  
CTTACAGTTT CTATCAAAAA TATATATTTG TTTCTAAAA TAAA 284

SEQ ID NO:2895

LENGTH:283

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03437

SEQUENCE DESCRIPTION:

GATCTCCTTG TTAGTGGTGG TAGGGAGCTA GACAAGGATG GCAACTATTT CTGTATCTTA 60  
CATACCTTN ATTTNGAGGC CCTGTCAATG TTTTATATAA TANNCATTTT TTGAAAAGGC 120

AACTCTTAAA ACTAAACAA ACTTAACAGT CTGTCAAGTT GGTGATATAA CCCACAGAA 180  
 GACTTACTTC AAGTGACTTG AAAACTTAGT ATTTTGTCTG TNCCTTGCTA ATGGGNATAN 240  
 ATCCTACAGA CCAAACANCC NCAGNTAANT CTTAANCTGC AAA 283

SEQ ID NO:2896

LENGTH:279

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03438

SEQUENCE DESCRIPTION:

GATCCCGGGA GACCTGGGGC TGCCGAAGAA GCTCTGCTCC AAATGGAGAG TGTAGCCTGA 60  
 GGGCTGGTGT TGCCTGCCTC CCCTGTNCTT GTNCCTTGTC CCAAATAAA TCCTTTCAGA 120  
 ATGTAGCACT CACGNCCTAA TAAGGAGCGA ATCCTACATC CACCAAGGCG GGCCTCTGG 180  
 CCCTCCCTTC CTTAAGCCCA GTCCTGTGTC CTCTGAAAGA GGTTCAGTC ACTCACACCN 240  
 GCTTGCCTC ACCATCAATA AAAGTAATTT CACNGAAA 279

SEQ ID NO:2897

LENGTH:278

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03439

SEQUENCE DESCRIPTION:

GATCCCCCTCC CCCAAGATAC TCTTTGTGGG GAAGAGGGGC TGGGCGATGG CAGNCTGGGT 60  
 GACCGACTAC CCCAGTCCCA GGAAGGTGG GGCCCTNCCC CTAGGATGCT GCAGCAGAGT 120  
 GAGCAAGGGG GCCCGAATCG ACCATAAAGG GTGTAGGGGC CACNNNNCTC CCCCTGTNCT 180  
 GTTGGGGAGG GGTAGCCATG ATTTGTCCCA GCCTGGGGCT CCCTCTCTGG TTTCTATTT 240  
 GCAGTTACTT GAATAAAAAA AATATCCTTT TCTGGAAA 278

SEQ ID NO:2898

LENGTH:276

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03440

SEQUENCE DESCRIPTION:

GATCTGCTTA CCAAGCATAT TAGGAAATAC CTCTTAGGAA GCATTAGCGG TCTCAGGCCA 60  
 ATTACTGTGG AGCAGCTTTC ATTCCTACCC ACTTGCAAAC CTTGGCGCTG TTGTCTGAGA 120  
 TTGCTGCAGC CATTCTTGT ACCATGGTAC TTCTCAAAC TGTGAAAAC CTGCACTTTT 180  
 CCTTGCATGA CAGGTTCTTG TCTTGTCTGT CATGGGAGCC ATTCTGCCAA TTAAATGCG 240  
 ACTGTGGTAT AAACAGTAAA ATGATTTAAA AGTAAA 276

SEQ ID NO:2899

LENGTH:274

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03441

## SEQUENCE DESCRIPTION:

GATCAGTGTT ATATTTTACT GGAGAAGCTA TTGAAGATGA TGATGATGAT TATAATGAAG 60  
 AAGGTGAAGA AGCGGATGAG GTAATGTTTA CCAAATAAGC AAATAATTCT NTGTGGTTAA 120  
 CACATTGAGA AGCAAATGA ATNACTTATG TATTCCTTTG CTATAATCAT TCTGTGATTT 180  
 GGGATAAAAA CATTTTGGAA AACATGATTT TAGAATTCTA CAGCCAAACA ATGTATGTAT 240  
 AAGGTTTCAA TAAATAANTT GCAAACTCA GAAA 274

SEQ ID NO:2900

LENGTH:273

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03442

## SEQUENCE DESCRIPTION:

GATCCCCACC TGCCATCCTA TAGTGTGTG TTCCTGTGTG TTCCGGGGCT TCTGGGCAGC 60  
 TGGGCCTGCC CGGGGAAGTC CTTGCAGGTG GGAGGCCATA CAGAGACCCA CTGTGTGCCA 120  
 CTGAGCGTCC CACTGCTGCT GGGCAACTGG AGGACTGCAG GGGGCGCCAG GTGACTCTCT 180  
 CCTTTTATAT CACAGCAGCT CCTGTGCTGA CCTTCAAGTT ACGTTTGGGA ACTGTAATAC 240  
 TAAAGGAAGA AATAAACTAC TAATTTGTAT AAA 273

SEQ ID NO:2901

LENGTH:359

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03443

## SEQUENCE DESCRIPTION:

GATCTGGTTA AGTTGTGTAG TAAAGCATTG GGAGGGTCAT TCTTGTCACA AAAGTGCCAC 60  
 TAAAACAGCC TNCGGAGAAT NNNTGACTTG CTTTCTAAA TCTNAGGTTT ATCTGGGCTC 120  
 TATCATATAG ACAGGCTTCT NATAGTTTGC AACTGTAAGC AGAAACCTAC ATATAGTTAA 180  
 AATCCTGGTC TTTCTTGGTA AACAGNTTTT AAATGTCTGA TATAAACAT GCCACAGGCG 240  
 AATTCGGGGA TTTNAGTTTC TCTGAATAGC ATATATNTGA TGCATCGGAT AGGTCATTAT 300  
 GATTTTNNNC CATTTGCGCT TCATAATGNA AACCAGTTCA TTTTACCTAT CAGGTTATN 359

SEQ ID NO:2902

LENGTH:268

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03444

## SEQUENCE DESCRIPTION:

GATCAGAGCA CAGTTGAAAT TCATGGAAGT GGCATTATTT AAGCAACCAG AATTCCACAC 60  
 TGTAGGAAGG TTTTGGAAAT TGTTTCGTTA TAGATTTTAT CTTATCTTTT GGTGTTGTCT 120  
 TGGTTTTTCT CATAGACTTT ATAAGTTTGA ACTGGACTTA TTTGATTATA ACCACAAATT 180  
 GTGTGTGTGT GTGTGTGTGT ATATATAGAA GTCATTATGG CAGATGCACA AATTGTGCAG 240  
 TGATGTAAAT ATACATACTT CACAGAAA 268

SEQ ID NO:2903

LENGTH:264

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03445

SEQUENCE DESCRIPTION:

GATCGGTAGT GTTGTGTGTA GGCCATTCTT CTGGAGAGCC ACAAGCAGGA AGAGCAGCGC 60  
TGTGTTGCAG AATGGAGTTC CATGGATTTC TACCAGACCA CTGAAGGAGT TCCTNGAAGC 120  
CCTGCGGTAG CTAGCACTGA AGACTATTTT NCTATTGGTA TAACCNGCCC ACCTGAAGGG 180  
GAAAGGGGAA ATCAANTTAA TTTTCTCGTT AGACATANGG AAATTTAAGG AAAAACAGNT 240  
TTAGGANCAG TTACTCAGCG TAGN 264

SEQ ID NO:2904

LENGTH:258

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03446

SEQUENCE DESCRIPTION:

GATCCATAGT GAAATTGCCA GAGTTTTGCC TGCTGCTTTC CTCGTGGCCT CTTCTTGGGT 60  
AGTGAAATNA AGTGACATTT GGATTTTAAT TTGGGTGGGA GGGCTGGGAC AGTTTTNTT 120  
CTAGAAATGT CTGTTGAGAT TTCCCCTTT AGTTTCCAAC CTTCTCCCA ACCCTTGGAG 180  
CTAAATGCGT TGTAATAAT TGCCAAAATG AAAAGTGTTC TGTAATACTG CAATAAAGGC 240  
TGCTTGTTC TGTGAAA 258

SEQ ID NO:2905

LENGTH:264

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03447

SEQUENCE DESCRIPTION:

GATCGGACAT GAAAGNACCC TGNGAGTCGA TTGTCCTANC TCCAGCGGCC CTGTCATCCA 60  
GCTCACTCAT CAATGGGGCC AGTCAGGCC AGGCACTGGG CTCGGGAGGA CTCACCACTG 120  
CCCCCTGCTG CCATGTGGAC TGGTGCAAGT TGAGGACTTC TTGCTGGTCT AGTCACGCAT 180  
GCAGTGTGG GGGATGCCTT GGTTCCTTACT GCTCTGAGAA TTGGTTGAGA TACTTTTACT 240  
AATNAACTG TGTAGGTTGG GAAA 264

SEQ ID NO:2906

LENGTH:257

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03448

SEQUENCE DESCRIPTION:

GATCTGCTTT CAACACTTTT AGCTCTTCTA GAATTCAGA AAAATGGTAT CGGATGTACA 60  
GCATGGACCC TTCTNTGGTG GGCTTCTTTA CTGTAATGCT TTTAANATTC ATCTGTGCTG 120  
TTNAGTGTCT CTGCAGTCCA TTCCTTCTGT TGAGTGTATC AGTAGTCCAT TCCTTTTCAT 180  
GGCTGAGTAG TATTCATTG TATAATTATA CCACTATTTG TNCATTTACT AGATAATANN 240

CAGTTGGCTT GTTAAA

257

SEQ ID NO:2907

LENGTH:256

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03449

SEQUENCE DESCRIPTION:

GATCCATCCG CCTTGGCCTC CCAAAGTGCT GAGATGACAG GCATGAGCCA CTGCACCCGG 60  
 CCATATAATC AAATTTTAT TGATTTTAGA GCAAAGGACT TTTCAATGT AACTGCTTAG 120  
 AAATCGAGCA ATTTTCTATT GTATAGAGTG AAAGTCAAAC TTGTTTATTG TACAAGTCTT 180  
 TAAAGGGATA GTTAGGAGTA AGTTGTATTT GCTGAATATA TAGACCTCAT TTGTAGCCAT 240  
 TAGTGATTCT GTATTN 256

SEQ ID NO:2908

LENGTH:256

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03450

SEQUENCE DESCRIPTION:

GATCTAATTA AAAAAAGGC AATATTTTA TATTAAAGTA CTATACTAGG AGAGAATGTT 60  
 TCANAACCTC CTGATGAATT TCTAAGTGAG CAACTTGATA TAAAATTGTA ATCTTCATTT 120  
 TTGTCAGTGT ATCCAGTTAC AGAATGCTAC ACACTTACCT TTTTATTGGC TGAGAAATCT 180  
 GGTATTTTCA TCTTAATCTC AAGATTGTTT TCAAGTGTTT TATAATTAAA TCATAATAGC 240  
 ATATTTTAAA ATCAAA 256

SEQ ID NO:2909

LENGTH:255

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03451

SEQUENCE DESCRIPTION:

GATCAAACCA GCTCTTNTNA CCCAAACCAN TGCCGCTGCA TTAAAGGGAG GCCCAGCTAC 60  
 TCCTTCCCAG CTGAGATGTG GGTACAGGTC AGATTTNTCA GGGAGATGGC ACTAACACGA 120  
 CACAAGCTCA CTCCCAGAAC CGCAGCTGAT GTTTATAATA ATCGTATGTA CTGTGCAATT 180  
 TAGGAGGGGA AAAAAAGGCT GTACAAGCTT TAACTCTAAA NNAATNTCT ATTTTNTNCC 240  
 TCTTGCAAAN TAAA 255

SEQ ID NO:2910

LENGTH:254

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03452

SEQUENCE DESCRIPTION:

GATCTGCCCT GTACAGCCAT GTAGGCTGTG CGCTGCATAA CTCCAGGGAC ATGAGTCACA 60

CAGACACAAT GTGAGTGTGC TCCCCCGTCA TGCAACATCT GGACACAACT AACAGAGCAT 120  
 GGTGAATACA TGCTGAATTG CATTCACTAT GGCTGTGAAC TAGGCCTGGG GACAAGANTG 180  
 ANTTTACAT GGAAAGAATT TCCTGTAGCA GGAACAGAGG GGATAACAAC AGCAGTAAAT 240  
 AATAATAAGN CAAA 254

SEQ ID NO:2911

LENGTH:253

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03453

SEQUENCE DESCRIPTION:

GATCCCCAC TAGTNCCCTC CCTCTNCCC TGTAATCCTG GTCTAATAAC CCCCCACACA 60  
 TACACCTCTG GTGACCTATT TGCACAGACC GTNGTCTTCC CTCCAGTNTT CTNAGGGATA 120  
 GGGGACATTC CATCCAAGC TTCTNCCTTA CCCACACCTA TCCTTTTNG GGGCTTTGGG 180  
 GTGGGGCTGG GGCAAGCAGA GGGACTGGGT CTTCACTTCT NGGGCTAATA AAATTGTTTC 240  
 TTTGTGGACT AAA 253

SEQ ID NO:2912

LENGTH:253

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03454

SEQUENCE DESCRIPTION:

GATCAAACCG GTTCTNTCCT TTCTTGTTT GCCATGTTAC TATGCCTCAA GCCCAGTTN 60  
 CTTTNNCCG AGCGATGGG CCAGTCTCAT TCCTCCCCAG GAGTGAACT NGCTTCANCT 120  
 GAAAAGGTTG GGTGCATTGT CAGTAAAAAG GGCTTATTG TTTCATTNA CTTTCTGCA 180  
 AAATTTCTT CAAAGCAACA AGTCCTAGGN GCACACAAAG CAACCCAAAG GCTTTCCCT 240  
 GGAAAAGCTC TTN 253

SEQ ID NO:2913

LENGTH:254

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03455

SEQUENCE DESCRIPTION:

GATCCGGGGC ATGCAGAAGC TGAGCACACC CCAGAAGAAG TNAGGGTCCC CGACCCAGGA 60  
 GAACGGTGGC TCCCACAGGA CAATCGCTGC CCCCCAACCT CGTAGCAACA GCAATACCGG 120  
 GGGACCCTGG CGGCCAGGCC TGGTGCCATG AGCAGGGGCTC CTCGTGCCCC TGGCCAGGG 180  
 GTCTCTTCCC CTGCCCCNTC AGTTTNCAC TTTTGGGGT TTTTATTGNT ATTAACTGA 240  
 TGGGNCCTTN TAAA 254

SEQ ID NO:2914

LENGTH:249

TYPE:nucleic acid

TOPOLOGY:linear



CLONE:HUMGS03456

## SEQUENCE DESCRIPTION:

GATCCTTGTT TTGTGTCAT GGAACTTCG GGGCTGGTGG GACTTAGGCC AAAAGCTCAG 60  
AGGCACAGCC AAAATTTAGA AGCTTGCTAC TCCTACGACT CGGCCTATAA GGAAGAGAGA 120  
AGCTGTCTGT ACTTTGGGGA CTACATTGCT GAAGGAAAAA AATCACTCCC TGGCTAATTA 180  
AGATTGCTTC CAAATTGGGG GAATGTGTGT CATTTCCTTT ACCAAGGCCA GTCATCCCTG 240  
CTTCCACCN 249

SEQ ID NO:2915

LENGTH:249

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03457

## SEQUENCE DESCRIPTION:

GATCCAGGCC GGGCCTATAC AGAGGTGCTG GCTGCTTGTT TACATTCTCC TCTGGGGCTC 60  
TACCTCTCCA CACTTCCCCA GAAGGGAAAA GGGCACCTG GATTACTNNN TTGGAATNA 120  
CTCCTTGGTG GGCAGCATCC TGAGGGTTCC CCAGAACCAG GCCTCTGCTC TGGCCCTCTT 180  
GCATCTGGAA CGCCAGGTGG GTTTTNTGG CATAGGAGCC CACTTGCATT TTCATAGTTT 240  
TATTGATN 249

SEQ ID NO:2916

LENGTH:249

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03458

## SEQUENCE DESCRIPTION:

GATCACAGCC TCCAGGGCCC CCCAAATCCC AGGGAAGGAC TTGGAGAGAA TCATGCTGTT 60  
GCATTAGAA CTTNCTNCTT TGCACAGGAA AGAGTCACAC AATTAATCAA CATGTATATN 120  
TCCNCTATAC ATAGAGCTCT ATTNCNTNC GGTTTTATAA AAGCCTTGGG TTCCAACCAG 180  
GCAGTAGATG TNCTTCTGAN CCGCAAGGNG CAAACACTGA AATAAAATAG TTTATTTTNC 240  
ACACTCAA 249

SEQ ID NO:2917

LENGTH:249

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03459

## SEQUENCE DESCRIPTION:

GATCTCCTTT TGTGAAACC AGTTTGATGT GCTAAAAGTA AAAAGTCTAN TTTCCAGTGT 60  
GGTCTTGTT AGAAGCAGCC AGATTTCCAA TGTGTTTTT CCCCTCCACT CAGAAACCCC 120  
TGCCCTTTCC CTTCAAAAA CGATGGCAGG CATTCTCTG AGTTTACAAG CAGAGACTCA 180  
CTCCAACCCA AACTAGCTGG GAGTTCAGAA CCCATGGTTG GAATAAAGAA ATTGTGCGTC 240  
TTGGTCAA 249

SEQ ID NO:2918

LENGTH:245

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03460

SEQUENCE DESCRIPTION:

GATCTATCCC TCGGGNCTCC ACACCTGAAC TTGCCTAACT AACTGGCAGG GGAGACAGGA 60  
GCCTAGCGGA NCCAGCCTGG GAGCCCAGAG GGTGGCAAGA ACAGTGGGCG TTGGGAGCCT 120  
AGCTCCTGCC ACATGGAGNC CCCTCTGCCG GTCGGGCAGC CAGCAGAGGG GGAGTAGCCA 180  
AGCTNCTTAA TCCTNAGCCT NCCCCTGTGT ATTCACCACC AATAAATCAG ACCATGAAAA 240  
CCAAA 245

SEQ ID NO:2919

LENGTH:384

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03461

SEQUENCE DESCRIPTION:

GATCAGGAAA CCAGAAATAC CACATTTATG GACCATGAAN GGTGGTTCT TGA CTCTGAA 60  
GGGACTTTTG AGTTAATCAG CGTAAGGGGA TTTCTAAAGC AGGCAATCCC TGTAGCCGCA 120  
GAGAATAAAC GCCTTCCCAA AATGGNACT NCCCACAGCC ACATTTTCTGAGTA 180  
CTGCTGAGTG AGGAATGGCA GTGAGGTTTC TTCAATNAGT CTCAGTTCTC TTAATTTTCA 240  
GGAAGAAAGG GTAATTGCAG CCCCTCAGCC CCCAGGATTG ACCTCTNGGG AGNCATGGTA 300  
GCGTTGTGTG CCAGGCCGTN GGTTCAGGTG TTNGCAGAAG CTTTCAGATT CGTCCGAAGG 360  
GAAATAAAGT GTGTTGGCGT TAAA 384

SEQ ID NO:2920

LENGTH:240

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03462

SEQUENCE DESCRIPTION:

GATCCCAGCA GCCCTCCCTT CACCGTGACC CCTGACCTTT GTTAGGAAGG TGCAGTTTTT 60  
NTTCTCAATC TAAATNCCTT TNAGGTGGGC CGCTTCCTTG GCTACCTGGT TCCAGGGGGC 120  
TGTTTTGTAA TNAGATGCTG CTGGCAGGCC ACTCAGAGGC TCCCAGCTGG GTTGGTGGGA 180  
CAGCCAGGCC AGATGACCTG ATTCCAGCAA AAATAAACT CAGATTTGGG CAAAATGAAA 240

SEQ ID NO:2921

LENGTH:238

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03463

SEQUENCE DESCRIPTION:

GATCCCTAGC AGCTCATCCT GCCCTTTGAA TACCCTCACT TTCCAGGCCT GGCTCAGAAT 60  
CTAACCTATT TATTGACTGT CCTGAGGGCC TTGAAAACAG GCCGAACCTG GAGGGCCTGG 120  
ATTTNTTTTT GGGCTGGAAT GCTGCCCTGA GGGTGGGGCT GGCTCTTACT CAGGAAACTG 180

CTGTGCCCAA CCCATGGACA GGCCAGCTG GGGCCACAT GGTGACACAG ACTCACTN 238

SEQ ID NO:2922

LENGTH:238

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03464

SEQUENCE DESCRIPTION:

GATCACC GGT TTCCGACTGA GTCTGGGGAT TTTGGCCTTG TTGACCCTCC TAGGTGCCCT 60  
GGGAATTGCA AACAGCTTTC TGGATGAATA TCTGGACCTC AATATTGCCA AGAACTGAG 120  
GCGGCAATTC TAACTTTTTC TCTTCCCTTT AATGCTTGCA GAAGCTGTTT CCACCATGAA 180  
GGTAATATGG TATCATTTGT TAAATAAAAA TAAAGTCTTT ATTCTGTTTT TCTTGAAA 238

SEQ ID NO:2923

LENGTH:238

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03465

SEQUENCE DESCRIPTION:

GATCTACTGT GTGGTGTCTG GGCAGATGAA AGTACACTGC TTAGNGTGAT GCTTAGCATG 60  
GGGCAGATGC TTGGTAAATT GTAATCACTT TTGTGTGTCAG TTAAATGGAT ATTCACTGT 120  
TGCCTCTNAA ACGCTTACGG TAATATATAC TAATTATACA TGTATTATC AGTTTATATT 180  
TATTGAACAT TTCGGGGAAG TAATTATAAA ATAATCTTGT CTACTGTCTT ACCCCAAA 238

SEQ ID NO:2924

LENGTH:347

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03466

SEQUENCE DESCRIPTION:

GATCTATGGT GCAGACTGCC TTCGTGGGT GCAGACTGAG CGACCGNAGC CCCAGACACT 60  
ACAGCTGGAT TNCTTGATGA AAATCTTGCC AAATTACCAC CACCTAAAGA AGACTATGNA 120  
AGGAAGCTCA ACTCCAGTAA AGAACTAAGA ACAGTGATA ACATGAAGAT AACATTTTGT 180  
CTTTGACCAC TGTCTTTTGA ATGGGCCAC AGTGTTTATG TACTCTTAAC AACTCACAGA 240  
ATAATACATG TTCACCTTAT TTTGTAAAT TGGGTTGAGA GGAACTAAT GGAGTTTCAT 300  
TGTAAGTGC CTTTNTAATT TATATAAATG TATTATTNTC CTATAAA 347

SEQ ID NO:2925

LENGTH:236

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03467

SEQUENCE DESCRIPTION:

GATCTGTGA TATGGTTTTN GGCCAGCAA ATCTAGGAGA AGATGCAATT AAAAATTCA 60  
GAGCAAAACA TCACTGTAAT TTTGCTGTA GAAAGCTTAA ACTTCCAGGT AAAAAATTTT 120

TTAATCAGTA TAGTATATAA TTNGTTACGA AACTNGGTTA CTACAATACC TCATAAGGCC 180  
 AGAGGTACAA NTGTTTAATG TAATGGTCTC TAATTGTGCC AGCTTCAGCA GCTCTN 236

SEQ ID NO:2926

LENGTH:271

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03468

SEQUENCE DESCRIPTION:

GATCCCGCAT GCCTGAATTC ACTAAAGCCA AGGGTCTNTA AGCCACGCTN NNTCTTCTGA 60  
 GACTTCCATT CCTTTCTGAT TGGCACACGT GCAGCTCATG ACAATCTGTA GGATAACAAT 120  
 CAGTGTGGAT TTCCACTCTT TTCAGTCCTT CATGTTAAAG ATTTAGACAC CACATACAAC 180  
 TGGTAAAGGA CGTTTTCTTG AGAGTTTAA CTATATGTAA ACATTGTATA ATGATATGGA 240  
 ATAAAATGCA CATTGTAGGA CATTCTCTAA A 271

SEQ ID NO:2927

LENGTH:235

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03469

SEQUENCE DESCRIPTION:

GATCTAAAT GTTTATTCCT TCTGTAGTGT ATTAATCTCT GTGTGTTTTT TTTGGTTTTG 60  
 GAGGAGGGGT ATGAAGTATC TTTGACATGG TGCCTTAGGA ATGACTTGGG TTTAACAAGC 120  
 TGTCTACTGG ACAATCTTAT GTTTCCAAGA GAACTAAAGC TGGAGAGACC TGACCCTTCT 180  
 CTCACCTCTA AATTAATGGT AAAATAAAAT GCCTCAGCTA TGTAGCAAAG GGAAA 235

SEQ ID NO:2928

LENGTH:234

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03470

SEQUENCE DESCRIPTION:

GATCCATCTN CCCTCATAAA AGTGTTCAAG TACAGCAGCT GAGGCTGCCC TGAGGAATCA 60  
 NGGGGCCATT ACCAAGGGGC AGGTAAAGGG TATNTAAGAG GTGGCCTTCA TGGTAGAGCT 120  
 TGACCAAGA NCTACTCCAC ATTGCGNTNG CCCAGACTGA CTCCATCCCC TGANTTTCCC 180  
 TTNGACTTCA CCCTGTTTGT AAATAAAACA NTAAATGGA AGGTGCTNTG GAAA 234

SEQ ID NO:2929

LENGTH:233

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03471

SEQUENCE DESCRIPTION:

GATCTCAAT CCTGGAACCC CGATTTCAAT CTACGTTCTA GTCAGTGGCC TCAAAGGACC 60  
 CCACAGCACC TGGGCCAGAC CAACAGCTCG AGGGAGAACC TGAAGGCCCA GGGGGTCCAG 120

GGCGGACCTG GGGCCCCGAC CACCAAGGAC AGCTCACGAC TGCCCCCTNA CTGCATGTCC 180  
 CCAAACCTNAG CATGACTCCT GTCCTCTTCA ATAAAGACGT TTCTATGGCC AAA 233

SEQ ID NO:2930

LENGTH:231

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03472

SEQUENCE DESCRIPTION:

GATCAGCAGA AAGCACAAAC ACAACTGCTT CTGTATTCAG GAGGTGTGA GTGGGCTGCG 60  
 GCANCCGTTG GTGCCCTGCA TAGTGGGGAT GGCTCGCAAC GTCTCTTCAT TCTGGAAAAA 120  
 GAAGGTTATG TGAAGATACT TACCCCTGAA GGAGAAATTT TCAAGGAGCC TTATTGGAC 180  
 ATTCACAAAC TTGTTCAAAG TGGAATAAAG GTTGGCTTTT TAAATTTTAA A 231

SEQ ID NO:2931

LENGTH:231

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03473

SEQUENCE DESCRIPTION:

GATCAGCAAA AATAAAGGGG CTACAGAAAC ACTCATTTTT ATGCTGTTCC CTCTGGGGCT 60  
 TCATGCAAAAG ACAATTCTNT GTAAATNTAC AGTTGACTCT GATTGGAAA TATGAAAATC 120  
 AGTCCATCCT TGTTATAAAA AATTTTTTTA CAATTGTAAT TATATTGATG TTCATATTGT 180  
 GTAAATAAC TCATTTAATA AAATAGTACT TTGATTTACG ACATCAATAA A 231

SEQ ID NO:2932

LENGTH:230

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03474

SEQUENCE DESCRIPTION:

GATCCCACCC CCAGCCATTT GCATTGCTGG CCCAGCGCCT GGCCTGGGGG GCGGGGAGAG 60  
 GCAGCAGAAG GGGCTGGGCA GGGGCGGTGG AGGACTCAGG AACTNCCCGG GGAGAGTGGG 120  
 TATGGCGGCT GAGCCAGGGN CCCTCCTGTN TTNACTTCC CGGGATGGGT CTTGCTTNN 180  
 AAGCTGTNTC CGACCCACCC ATNTAATAAA ACCCAAAGGA ACAGCCCAAA 230

SEQ ID NO:2933

LENGTH:328

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03476

SEQUENCE DESCRIPTION:

GATCAGCCGG AAACCCCTGG CAGCCAAGAA CAGATAAGGA AGGGATTGGC ATCGGCTGGC 60  
 CTTCCAGCAC CTCTCTCTC CAACACTTCA TTCTCTCTTG CCCTGTNTCT CAAATAAACC 120  
 CAATGCTGCG TGTGAGGCCT TTTTATTTT TCTTTTCACT CTCTTTCTAA TGCTTCCAC 180

CTTACCTTTT AGATTCTTTT GCTAGGTGGG AGATTGTTAT AAGGTCTTTA AACCATTTC 240  
 ATTGTTTCT TTAACATTAC CAAAAGCAGG GNACAAAGCT CTTATTCAAC TCGNATTCC 300  
 ATAGNGGGCT CTGGNTTNTT CTGAATN 328

SEQ ID NO:2934

LENGTH:220

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03477

SEQUENCE DESCRIPTION:

GATCTTGCCC GGTGTCCTGG TCCTCTTGCT TCCGTCGCGG CCGCATGTGC GTGTGTCCAA 60  
 GCAGGTCTCG GCGCCTCAA CTGCTGCCCC TGGTTGAATG TTCTCTTGAT AGTGCTGGAC 120  
 CCTTTGTCTA TTTNAAAGCG AATTTTGTGT GATTCCTGC CCTTTGCGTT ATATTGTATA 180  
 ATACCAACGT AAGGAAATAA ACCTTTGGAA TTGTTGAAAA 220

SEQ ID NO:2935

LENGTH:219

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03478

SEQUENCE DESCRIPTION:

GATCCGAGGG CGATGGGACA GTGCACCGCA GATAGAAGAG GAGGACGTGC AGCATGGTGG 60  
 GAAACGGGGA CACCACCTCC CAGGACGACT GTTCAGCAA AGAGCGCANT GCTCCAGGTG 120  
 ACCCAGCAAG GCTGTTGTNT GTATGGAAGG ACACGCTCGC GGCAAGGGCA GGGCCTGGGN 180  
 AGGGTGGCCT GTCCAGTCCT NNAGACAAGG GGAGGCCTN 219

SEQ ID NO:2936

LENGTH:218

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03479

SEQUENCE DESCRIPTION:

GATCACCTGA GGTGAGGAGT TCGAGACCAG TCTGGCCAAC ATGGTGAGAC CCCATCTCTA 60  
 CTAAACTAC AAAATTAACC AGGTGTGGTG ATGCATGCCT TTNACTCGGG AGGCTGAAGC 120  
 AGAAGAATCG CTAAACTCG GGAGGCGGAG GTTGCACTGA GTCCAGATTG TGCCATTGCA 180  
 TTCCAGCCTG GACAAGAGGA GCAACACTCT GTCTCAAA 218

SEQ ID NO:2937

LENGTH:218

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03480

SEQUENCE DESCRIPTION:

GATCATGCCT GCGTGACAAA GCCTCCAGAA AAATCCTTGA AAGACAGGAC ATGGAGAGCT 60  
 GCTGGGTTGG CGAACACATC CATGTGCCGG GAGGATGGTG CACCCCAACT CCACAAGGAC 120

CCTTCCAGAC CTCACCCTGT GTATNTCTTC ATCNNNTGT TCATTTGTAT CCTTTAAAAT 180  
ATCCCCTGTA ATAAATCAGC AATAGTAAGT AACTAAA 218

SEQ ID NO:2938

LENGTH:218

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03481

SEQUENCE DESCRIPTION:

GATCTAAACA GTGAATAGTA CATGCAAAGG CATAGTCTAG AGGATAAAAG TGAAAATAAT 60  
TAGTAGCAAA ATNAATGCCT TGTGGATGAG GTTTAGGGGC CAATAACTAT CTTGAGGTAA 120  
GGCCAGGTTG TGGCTGCCTT TGTGTTGTAC TAAGGGGTTT GGACCTTCCT AGGAGATTAG 180  
AGCTTNATTA AAGTCACAAC ATCCATAAGN GAAATAAA 218

SEQ ID NO:2939

LENGTH:218

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03482

SEQUENCE DESCRIPTION:

GATCCCTTTG CTGTGAGGGT AGAAAACCTC ACCAACTGCA CCAGTGAGGA AGAAGACTGC 60  
GTGGATTCAT GGGGAGCCTC ACAGCAGCCA CGCAGCAGGC TCTGGGTGGG GCTGCCGTTA 120  
AGGACGTTCT TTCCTTACTG GTGCTGATAA CAACAGGGAA CCGTGCACTG TGCATTTTAA 180  
GACCTGGCCT GGAATAAATA CGTTTTGTCT TTCCCAA 218

SEQ ID NO:2940

LENGTH:216

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03483

SEQUENCE DESCRIPTION:

GATCTTAGAT TTGATGAAGC ACAGTATGCA GGTAGGCCTA ATGGGGGAAG ATGGTAATAT 60  
AAAAGCAAGA AGTATTTTTT TTTTGAATG NCTGAAAGCT GTTCTGTGGA TGACCTACCG 120  
NTTCCTTTAA ACACGATTCT CTCATTCCA ACTCCAACT TGCTCAACTA ATCCTTAAAA 180  
ATAAACTTGA GCTGGAATTT GAGGCTTGCC TGGAAA 216

SEQ ID NO:2941

LENGTH:213

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03484

SEQUENCE DESCRIPTION:

GATCTCGGGG GTGTGGGGCC CTGTGCCTTC CTGAAGTGCT GGCAGCCCAG TGGCACCTCC 60  
TTCAGGCCTT TGGGGTATTC CCCTAGTG TG CCCTAGTNAG CCTCATATTC TGGGCGGACA 120  
GCTTGTCTGG ACTTCGGAGT TGGGGGTGGT CAGACACCAC AGGAGCTGTC ACCTCCTGCG 180

GATGGGCAAA TAAATTNGTG GAGGACNCCG AAA

213

SEQ ID NO:2942

LENGTH:212

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03485

SEQUENCE DESCRIPTION:

GATCCTCTCC CCTAGTATNT TCAGCACATG CTCACTGTTC TCCCCATCCT TGTCTTCCC 60  
 ATGTTCAATTA ATTCATATTG CCCCAGCCT AGTCCCATTT TCACTTCCTT TGACGCTCCT 120  
 AGTAGTTTGG TTAAGTCTTA CCCTGTAATT TTNGCTTTTA ATTTTGATAC CTCTTTATGA 180  
 CTTAACAATA AAAAGGATGT ATGGTTTNA AA 212

SEQ ID NO:2943

LENGTH:212

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03486

SEQUENCE DESCRIPTION:

GATCTTTTCA GAGTGGTGTT TCTAAAAGAG CATGTACAAA AGTGGCCTGT GGACATTTAG 60  
 GCCTAAAGTG ATGCATTTNC TCTTCCTNTT TGTGCAATG TATCAATGTA GAGTTGCTCT 120  
 GTTTTCTNCA ACTGTATNNA TTGCTGCATT TCTCAGCATA AACTTATCCC ATTGTATTTT 180  
 TNATAAATAA ATATTTTTTT TGAACTTTCA AA 212

SEQ ID NO:2944

LENGTH:212

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03487

SEQUENCE DESCRIPTION:

GATCAAGGAT GAGGATTAGC ATCTGCAAT TGAACCTCTAT CTAATTTNCA TTTTTATTC 60  
 TTAGAATTGT AATTAATTT GTGTAATAAA TGTNTCCAT TTCATTTGTA CACTTAAAC 120  
 TTGGGTGACT GAAATGCAGT TAAGTGAATT NCCTTTTNTT AAAAGCAAAT GTAGATTATN 180  
 CAATAAAGCA GCAAACCAAT ATTAANCATA AA 212

SEQ ID NO:2945

LENGTH:211

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03488

SEQUENCE DESCRIPTION:

GATCTATGTA AAAGAATACA ATTCTTTTTT ACATAATTAG TGAAATTTTA TTTTTATTA 60  
 GGAAACACTA AATAGTGTA TATTTCTTTT GCTTTTAAAA AAATTCCTGG TAGCAATCA 120  
 AGATAAATAA TTGNTTCATT TTCTTGAGCA ATACTGAAGC AGGATGAAGT AAGAGGAATG 180  
 CATTCAATTA AACATGCTTT GCTTGNTGAA A 211



SEQ ID NO:2946

LENGTH:209

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03489

SEQUENCE DESCRIPTION:

GATCAAAGAA CTTTCTTAT AACCTGCAAT CAGCTACTCA GCCAAAAAAC AAAACAAAAC 60  
 CTTGACTGCC TATGGAGGAA GACTGTGTTC GGGGGAGCTG GCATAGCTAG TGCAGAGTTC 120  
 AGATTTTCTG CTGATAATCT TTTACACCTT GGGAAAACCT TAATATCCGT ACCTGAAGGN 180  
 TGATTCACCT AAAAATGTGT TAACTGAAA 209

SEQ ID NO:2947

LENGTH:208

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03490

SEQUENCE DESCRIPTION:

GATCTTCTCT GTGAATCCAC CCCTGGCTAC CCCACCCTG GCTACCCCAA CGGCATCCCA 60  
 AGGCCAGGTG GGCCCTCAGC TGAGGGAAGG TACGAGCTCC CTGCTGGAGC CTGGGACCCA 120  
 TGGCACAGGC CAGGCAGCCC GGAGGCTGGG TGGGGCCTCA GTGGGGGCTG CTGCCTGACC 180  
 CCCAGCACAA TAAAAATGAA ACGTGAAA 208

SEQ ID NO:2948

LENGTH:207

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03491

SEQUENCE DESCRIPTION:

GATCACACTT NGGCCTTCAC TGCAGCGTGG TGTGGCCACC GTCCGTTTCC TCTCGGCCTT 60  
 CCTCCGAGTC CAGGTGGACT CTGTGGATGT TTGGATGTGG CCCGAGCAGG CTCAGGCGGC 120  
 CCCACTNACC NACAGCATCC GCCGCCACCC CTTGGGTGT NAGCNCTCAA TAAAAACAAC 180  
 AACTATAAA GTGTTTTTAA ATCCAAA 207

SEQ ID NO:2949

LENGTH:203

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03492

SEQUENCE DESCRIPTION:

GATCTGAAAA TTCTGGAAA TTGTTCCATG TGATTAACAT GGAAGTGCCT CTACTTAATC 60  
 ATTCTGAATN ATTAAATCGT TTCATTTTCT AAATGCNTTA TAATGTGTTT AGCCCTTTCT 120  
 TGTGCTGTA TGTTTAGATG CTTTCCAATC TTTTGTTACT ACTAATAATG CTATAAAATA 180  
 AATATCCTTG TACTTCTTG AAA 203

SEQ ID NO:2950

LENGTH:201

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03493

SEQUENCE DESCRIPTION:

GATCTTNTCT GTNTGGGTGG GGAGCCGGCC GGCCGTGACC CAACGGCATC CCAAGGCCAG 60  
 GTGGGCCCTC AGCTGAGGGA AGGTACGAGC TCCCTGCTGG AGCCTGGGAC CCATGGCACA 120  
 GGCCAGGCAG CCCGGAGGCT GGGTGGGGCC TCANTGGGGG CTGCTGCCTG ACCCCCAGCA 180  
 CAATAAAANT GAAACGTGAA A 201

SEQ ID NO:2951

LENGTH:200

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03494

SEQUENCE DESCRIPTION:

GATCGTATAT GTGGGTCCCT TCCCTAGAAG AATGGTTGCT GATATGGCTA CTGCTTCTAC 60  
 ATCTNGAGTT TTTNAATTTA CTTTTTTNAC ACTGTAGCAT TGAGACTGCT TGATTCAAGT 120  
 CTGGTGCTTT GCCAGATGTA TTAATTNCCA TAAATGCTTT GTGAGTTTGG TTTAAATGAA 180  
 GATTCACTTG GGAAANCAAA 200

SEQ ID NO:2952

LENGTH:199

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03495

SEQUENCE DESCRIPTION:

GATCACAGCC GGAATGCAGC TGAAAGATTC CCTGGGGCCT GGTCCAACC GCCCACTGTG 60  
 GACTCTAAGG CCTCTGCATT TGTGGGTGGT CTGCTGTAA TATTTTGGTC ATNGGCTGGT 120  
 CTGGTCGGTT TCCCATTTGT NTGGCCAGTC TCTATGTGTC TTAATCCCTT GTCCTTCATT 180  
 AAAAGCAAAA CTAAAGAAA 199

SEQ ID NO:2953

LENGTH:319

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03496

SEQUENCE DESCRIPTION:

GATCTCTAGT TTTTNTGGTT TAATTTTNAG TAGCAGGTCA AAAACCTGCC CTCCTGTNAC 60  
 TTATTCCTG AGACTTTTCA GGAGAGCCAG CCCACAGATG ATGAAGAAAT GATGGAAGTT 120  
 CATTTGGAGA GTCAATGGG AAAAAACAA AAAAAAACT GCCTTTAATA CAGGCAATTC 180  
 AGTGGACTAT AATAATAGTG GAGGGTTGAG ATGTAGAGTT TTTAAAAAGT GAACAGTTGC 240  
 TGTTCTTACA TCTNTAANGA AAGCCATAAT GTCTTTAAAT CACTCTTCTG TAAATAGATG 300  
 NCCNTTTTGT CAGTGATAA 319

SEQ ID NO:2954

LENGTH:193

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03497

SEQUENCE DESCRIPTION:

GATCCTTAAT GCAGAGCTAG AGGACTTCTG GCAGGGAAGT GGGGAAGTGT TCCAGATAGC 60  
AGGGCATGAA AACTTAGAGA GGTACAAGTG GCTGAAAATC GAGTTTTTCC TCTGTCTTTA 120  
AATTTTATAT GGGCTTTGTT ATCTTCCACT GGAAAAGTGT AATAGCATAC ATCAATGGTG 180  
TGTTAAAGCT AAA 193

SEQ ID NO:2955

LENGTH:193

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03498

SEQUENCE DESCRIPTION:

GATCTGTTTC ATTTATAAAA GGTCCAGTTT TTAGGACTAG TACATTCCTG TTATTTTCTG 60  
GGTTTTATCA TTTTGCCTAA AATAGGATAT AAAAGGGACA AAAAATAAGT AGACTGTTTT 120  
TATGTGTGAA TTATATTCT ACTAAATGTT TTTGTATGAC TGTGTTATAC TTGATAATAT 180  
ATATATATAT ATN 193

SEQ ID NO:2956

LENGTH:193

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03499

SEQUENCE DESCRIPTION:

GATCCAAGAA TGTGCCAAGA GTCCCGCCAG CCTCAGCCAG GTGGGCCTGT ATATAGGGTC 60  
CATGTGCAAT AGGGAGGGAC GTCTTCTATT TTTNCTGCC CCTCCCCGC CCACTGTCTG 120  
GGGCAGGGGG AGAAGGTATT TTCGAGATAA AGCACAGGCA CCACAAATAA AAGTCGTGAA 180  
GTTGCCACTC AAA 193

SEQ ID NO:2957

LENGTH:192

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03500

SEQUENCE DESCRIPTION:

GATCTGGGAG CAAGCTACCA ACAGGGGAGA CTCTTTCCTG TATGGACAGC TGCTGTGGAA 60  
ATACTGCCCTG CTCTCCCAC CTNCTCANAG CCACAGGAAA GAGGAGGTGA CAGAGAGAGA 120  
GCAAGGAAAG TAATGAGGTG GATTGATACT TTCTACTTN CATTAAAATT ATTTTCTAGC 180  
CTGCAGTCTA AA 192

SEQ ID NO:2958

LENGTH:190

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03501

SEQUENCE DESCRIPTION:

GATCAGCCTG GGCATCATGG TGGCCTGCAC CTGTAGTCCC AGCTACTCAG GAGGCTGAGG 60  
TGGGAGGATA GTTTGACCCC AGAAAGTTGA GGCTGCAGTG AGCCATGAAT GCACCACTAC 120  
ACGCCAGCCT GGATGACAGA GCGAAACCCT GTCTCAAAGT AATTAATAAT AATTATATTA 180  
ATTCAGCAAA 190

SEQ ID NO:2959

LENGTH:190

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03502

SEQUENCE DESCRIPTION:

GATCTGCTTC CCACTGTGAC TGGGCTATGG GATTCTGACT ACCTTGCTTA CAGATTCATG 60  
GTTTGATAAA TTTGTTGTAT TCAAAAACCTT GAAATGCAGG ACGCCATTAA GTGTCTGTTT 120  
ATATTNTGG AATATTGTA TTAATTACAA TTAATTAATA AAAGTGGGTT TAAAAAACCT 180  
TTCCAGGAAA 190

SEQ ID NO:2960

LENGTH:193

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03503

SEQUENCE DESCRIPTION:

GATCTTGCCC CCTTTGACCT TCCCAAAGG ATGGTCACAC ACCAGCACTT TATACACTTC 60  
TGGCTCACAG GAAAGTGTCT GCAGTAGGN ACCCAGAGTC CCAGGCCCTT GGAGTTGTTT 120  
TCGGCAGGGG CCNTNTCTCT CACTGCATTT GGTGAGGGG GCATGAATAA AGGCTACAGG 180  
CTCCAACNTG AAA 193

SEQ ID NO:2961

LENGTH:185

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03504

SEQUENCE DESCRIPTION:

GATCAATCTG AACTATCTT AGCCCAGTCA GGGAGCTCTG CTTCTAGAA AGGCATCTTT 60  
CGCCAGTGA TCGCCTCAA GGTGAGGCC GCCATTGGAA GATGAAAAAT TGCACCTCCT 120  
TGGTGTAGAC AAATANNAGT TCCCATTTGGT GTTGTTCCT ATAATAACA CTTTTCTTT 180  
TTAAA 185

SEQ ID NO:2962

LENGTH:191

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03505

SEQUENCE DESCRIPTION:

GATCCAACGA GGAATATTTT GCCACACGGC AAATATATAC CGTATAATTT TCTGTACCAC 60  
 TTGATAGAAA GGTAAAGAAT GAATATTGTT TTTTAAATAA CTTTTTCTT ATATAAGTAA 120  
 TATGTGCTTA TCGTGTAAC ACCTAAAAAC ATTGAAAAAT AAAAGGAAAA TAAAATTCAT 180  
 ACATAACCAA A 191

SEQ ID NO:2963

LENGTH:177

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03506

SEQUENCE DESCRIPTION:

GATCAGAAAT GGAGCATGGC CTTGTCCTTT AATGGGGATG CAAATAAAGT TTGTGGGGTT 60  
 AAAAGTTATA AGACAGNAGT GATACCCAC TCTCTCCATT ATTGTCCAGC GGGGTGACAT 120  
 AATGACAGGT TAAATATTTG TGATTCATTG ATTAAATATT ATTTAAAGAA ATGTAAA 177

SEQ ID NO:2964

LENGTH:176

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03507

SEQUENCE DESCRIPTION:

GATCACAGNG NTGGTGTCAG ATNCTATTNN AGGTTTGAAC TCTTGAGCTG GAACCTCAGC 60  
 AAAGTAGAGT ATATATTGTT CAGTATTTCT TTGGAAACAT TTCATTAATG TACTTGTCTT 120  
 ACAGAAATTT CTGAACCTTA GTAAAAAATA ATAAAGTTAA ACTTTTAAAA CTCAAA 176

SEQ ID NO:2965

LENGTH:172

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03508

SEQUENCE DESCRIPTION:

GATCTGAACG ATGCCGTGTC CAGTTTGCGA AGTCCTATTC CCCTCCTCCT GTCGTGTGCC 60  
 TTTGTTTCAAG TGGGGATGTA TTTTATGTAG AAGGTGGAAG AAGGCTGCTA TNACTCTTTG 120  
 GATGGGAGTC TGGCAAGAGG AAATTGGAAG ATAAATAAAA TAATAAGTGA AA 172

SEQ ID NO:2966

LENGTH:172

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03509

## SEQUENCE DESCRIPTION:

GATCTGCTCT GCTGCCCTGA ACTCTTACGG CAATTTAGGT TTCTCATTTT NNTTTTCTTT 60  
 TTACATATGT ACAAATTGTT TTAAGCTTTG GCCTCTATCC AGGTTATNCT GACAATGAAG 120  
 AAATGGGAGT TGTCAGAGCA TTAATATGCA ATCTTCACTA AAANCAGTGA AA 172

SEQ ID NO:2967

LENGTH:170

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03510

## SEQUENCE DESCRIPTION:

GATCTCTAAT ACAGTATCTA ACACAAAAGA AGCTTTAAAA AGACAGTTTC TTCCTTATT 60  
 TGATTAGCTA GAAGTTTATC TAGGTAAAG CAAAAAATA ANTTTNCAN GCATANCATA 120  
 NCATTGGGGT TCITTTTATA CTCAAGATGT TTANCTGTTC AAANTGNAN 170

SEQ ID NO:2968

LENGTH:355

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03511

## SEQUENCE DESCRIPTION:

GATCCAGGCG GGAGCAGAAG CTAAAGCCAA AGCCCAAGAG AGTGGCAGTG CCAGCACTGG 60  
 TGCCAGTACC AGTACCAATA ACAGTGCCAG TGCCAGTGCC AGCACCAGTG GTGGCTTCAG 120  
 TGCTGGTGCC AGCCTGACCG TCACTNTCAC ATTTGGGCTC TTCGCTGGCC TTGGTGGAGC 180  
 TGGTGCCAGC ACCANTGGCA GCTCTGGTGC CTGTGGTTTC TCCTACAAGT GAGATTTTAG 240  
 ATATTGTAA TCCTGCCAGT TTTTNTTTT TCAAGNCAGG GGTTCATNC TNAGAAAACC 300  
 CTACTCNACA CAGCACTTCT TANGGTAGGC CNCTTATTCA ANTTCAATTT NNAGN 355

SEQ ID NO:2969

LENGTH:258

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03512

## SEQUENCE DESCRIPTION:

GATCTCGGAT GCCATCCCCG AGCTGAAGGC CTCCATCAAG AAGGGGGAAG ATTCGTGAA 60  
 GACCCTGAAG TGAGCCGCTG TGACGGGTGG CCAGTTTCTT TAATTATGA AGGCATCATG 120  
 TCACTGNAAA GCCGTTGCAG NTAACTTTG TATTNAATT TGCTTGGTG ATGATTACTG 180  
 TTTTGACATC NTCATGCCTT CCAAATTGTG GGTGGCTCTG TGGGCGCATN ANTANAGCC 240  
 GTCCTTGATT TTGGGAAA 258

SEQ ID NO:2970

LENGTH:81

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03513

## SEQUENCE DESCRIPTION:

GATCACAAGA GGCCCATTTG TAGTGGCTGG TTGACAACGG CTGGNGCAAA TTAAATAAAT 60  
 AAAATAGCTC TNTCTTTCAA A 81

SEQ ID NO:2971

LENGTH:169

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03514

## SEQUENCE DESCRIPTION:

GATCTNAGAC ATCCCCATCT TTGTAAGCAG AACAGTACGG CACTTCACCA CATCTNCTTC 60  
 CCACCATGCT TCTAAGCAGC TGTNTTCCCC CTGCTAATGT TACAACCAAA GCAGCCACCC 120  
 CACCTCCTNT NGTGTGAGC CTCACGACCT NTGACCCAGC TGGAAAGCN 169

SEQ ID NO:2972

LENGTH:168

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03515

## SEQUENCE DESCRIPTION:

GATCTCATTG CTGCTTTTCT TTTATGTCCT TTTGTCTCCA TGGGAGGTTG AGCTTCTTTT 60  
 CCTACAAGTT TACTTACTGT TTGCATTTAC TTTTCTTTG CATTGTCTGT TCCAGTCCTC 120  
 TGGCTATTG ACTATTGTGT AATAAAAGGA CAAAAACAA ATGTGGTN 168

SEQ ID NO:2973

LENGTH:225

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03516

## SEQUENCE DESCRIPTION:

GATCTTGCTG CAGCCACAGT GCAGNTCCAC ATTAAGTCTA CAGACCAAAC CATTGTATC 60  
 TGGCATCACT TACTAACACA CGNCATGCGG CTTTCTGCA TCAACTGCTA TGACGGTTAA 120  
 GANTGTCACT ATACAAGNAG GGATAGAAAA CTGGTACTGT TTTAAATAAT CTGTAATNTC 180  
 AATGTTTTTT TTTTNTTTC GGAAANNCNT NGTTTGCCC GNTTN 225

SEQ ID NO:2974

LENGTH:169

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03517

## SEQUENCE DESCRIPTION:

GATCTTCTGT GGTGCTTAAG GNAAGTACT AGAGCTCCAC TAACAGTCTC ATAAGGAGGC 60  
 AGCCATCATA ACCATTGAAT AGCATGCAAG GGTAAGAATG AGTTTTTANC TGCTTTGTAN 120  
 GCAAATGGNA AAGGTCAATA AAGNTATATT TCTTAGNAA ATGGGCAAA 169

SEQ ID NO:2975

LENGTH:167

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03518

SEQUENCE DESCRIPTION:

GATCCCAACT CCCATGACCT CTGGCTTCAG TGGTGGGTGG GGCAGGGCAG ATGAAAGGGC 60  
TTCAGTGGGA ACCTCTGAGA GCATTTTCCT GTTCCCCCTA TCAACCGCCC CCAGTGATAA 120  
CATCTGTGAA GCCAGCCATT ACTCAATAAA CTGCAAACTT GTCTAAA 167

SEQ ID NO:2976

LENGTH:167

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03519

SEQUENCE DESCRIPTION:

GATCAGNAGC CCACTGATAA GGGGCCCTAG GGTACAGGGT GCTGCCCAGC AGGTCGCCAC 60  
CGAGTGTCTT CTCATTTTAT TTCAGCTCCA TTTTGCCCAT AGATGGGCAG AGGGGTGAGA 120  
TTGGCTCATC CCCCTTCCAG ATTCTGCAAT AAAGCGGTGT GAGGAAA 167

SEQ ID NO:2977

LENGTH:167

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03520

SEQUENCE DESCRIPTION:

GATCATCCCC TCTTTTNGGA TGTATAAGAN CCTTCGGGAC AACAGAACCT ATTTNTGGAA 60  
TTGCAGAAGA TAACATATTT CCCTTATTN NATTTAATCA CCATAAACCA TACCTATTTA 120  
ATGAGTGTAT TCTGTGCAAT TTTTCCTCA GATTGTNTTT AACTNNN 167

SEQ ID NO:2978

LENGTH:166

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03521

SEQUENCE DESCRIPTION:

GATCGACTGC CAAGCAGCAG CCGCTGCCGA GGGGCTGCGT CTGACATCCT GACCTCCTGG 60  
ACTGTAGGAC TATATAAAGT ACTACTGTAG AACTGCAATT NCCATTCTTT TAAATGGGTG 120  
AAAAATGGTA ATATAACANT ATATGATATA TAANCCTTAA ATGAAA 166

SEQ ID NO:2979

LENGTH:165

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03522



## SEQUENCE DESCRIPTION:

GATCTGGGCG GGGTGGTGCG CTCCTCAGGG CGGATGCCAC CGGGTCCCC AGGGGAATAC 60  
 ATGTCCCCAG CTCTGGGAGG GGTTCGCTAC TGGCCTCCTA CTTTCCTCCC TAGGTGGACA 120  
 GTGCTCCTCT AGAGAGCTGC GACTTTAATT AAAACAACA GGAAA 165

SEQ ID NO:2980

LENGTH:165

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03523

## SEQUENCE DESCRIPTION:

GATCAGTGTC AGATATTGTT GAGGGAAGTA ATTTTATAAA GTTACACAAA GGTAGTTATA 60  
 AAAAAAGCCC AGTTTGTTTT TCAGAAGGTG ACTTTNATGT GCTTGAAAAG TTTAATATTT 120  
 GANTATTGTG TTTAACCACA TGGTATTAAA ATTTTGCAAT ATAAA 165

SEQ ID NO:2981

LENGTH:163

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03524

## SEQUENCE DESCRIPTION:

GATCATGAAA TAATGTGCTT TGTA AAAAGA TTTCAAGTTA TTAGGAAGCA TACTCTGTTT 60  
 TTNAATCATG TATAATATTC CATGATACTT TTATAGAACA ATTCTGGCTT CAGGAAAGTC 120  
 TAGAAGCAAT ATTTCTTCAA ATAAAAGGTG TTAAACTTT AAA 163

SEQ ID NO:2982

LENGTH:162

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03525

## SEQUENCE DESCRIPTION:

GATCCGCCTG CTCGGCCTC CCAAAGTNC TGGATTATAG GTGTGAGCCA CCCTGCTCAA 60  
 CCAGGTTTNA TTATTTAANT TAGTTAACT TTGGATAGAT TGTATAATAT ATAGTTTAAT 120  
 GTAATCATGC TCATATTTT NAAATAAATA AAACACTATA AA 162

SEQ ID NO:2983

LENGTH:161

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03526

## SEQUENCE DESCRIPTION:

GATCACTTGT TGTTTTACTA AAGAAAGATT ACTTAGAGGA AATAAGAAAA ATCATGTTTG 60  
 CTCTCCCGGT TCTTCAGTG GTTTGAGACA CTGGTTTACA CTTTATGCCG GATGTGCTTT 120  
 TCTCAATAT CAGTGCTCGA GACACAGTGA AGCAAATTAA A 161

SEQ ID NO:2984

LENGTH:161

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03527

SEQUENCE DESCRIPTION:

GATCTGAGGT CTAACATTGT TATCCTATAT CATTTTCATC CCAAGTAGTG ATATCTGTGA 60  
AATCACAGGT TTGATGTGTG CTAATNATGT ATTCTTCTAA TACATATTAA AAGACATAAC 120  
TATCAAAACA AAATAAATTT GTCTGTTTTT AACCAAAGAA A 161

SEQ ID NO:2985

LENGTH:161

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03528

SEQUENCE DESCRIPTION:

GATCTCCATT TGATATTTTC ATTTGTATAA CTCATTGCA GTCTGAAAAT TTTTTTAGT 60  
GCCAGTCCCT GAACATATCA TTGAAAGTTA ATTTTCTTTG CATTTTAAAA TATCTGGATT 120  
ATGAAGAAAA AGTGATGAAA ATAAATTAAA ACTGAATTAA A 161

SEQ ID NO:2986

LENGTH:160

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03529

SEQUENCE DESCRIPTION:

GATCTGTGCT AGCTGTGAGG CAGCTCTGGA ACGTGAAGAG CTGTTTGGTT TGAACCGTGA 60  
ACAAAACGTG GTTTTGAGTT TAGCTGACAT TATGGAAAAA AGTTCATCAC GTGACTGTTA 120  
ATGTAAACCT GGTTATTAAA ATAACNATGA AATTACCAAA 160

SEQ ID NO:2987

LENGTH:157

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03530

SEQUENCE DESCRIPTION:

GATCTCTCTG TNACTGACTT TGTGACTGTC CTGTGTTTTT TCCTGCCATT GCTTTGTGTT 60  
TGGAAGGACA TGATGGGGGT GATGGACTGG AAAGAAGGTG CCAAAAGTTC CCTCTGTGTT 120  
ACTCCCATT AGAAAATAAA CACTTTTAAA TNATAAA 157

SEQ ID NO:2988

LENGTH:157

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03531

## SEQUENCE DESCRIPTION:

GATCAAANCA CCTNGGAGTG GTCACCAGGG GGACAGGGAG CCCCCACCA ATGTATCANT 60  
 GGGTGATTTA TNATGCCTTC TGCCCTTTGG CGAGTGAATG GNTTCCCAT AGGGGAAGTT 120  
 GGCCTCCCTC CGTGAGCTTT GGAAATNTTT TCTAATN 157

SEQ ID NO:2989

LENGTH:157

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03532

## SEQUENCE DESCRIPTION:

GATCCGAATG GNCTGGGTGA GCACGAATTA CCGAGGCCTT CCCTTTGNTA CAGTCCAGGA 60  
 TTTGTAAGGN ATGAAGACCC CTGGNCCCCA TTCTNTTGGG GTCCATACAT ACTCTCCGAA 120  
 GATAGCAACT TGCTTCAGGT CAAAGTNAAC CCNAGAN 157

SEQ ID NO:2990

LENGTH:114

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03533

## SEQUENCE DESCRIPTION:

GATCTCCTTA CGTAGCAGCC AAAATAAATG AAGCAAAAGA CTTGCTAGAA ACAACCACCA 60  
 AACATTGATG CTTAAGGACC AACTGAAGG AAAAAAAG AGGGGACTTC GAAA 114

SEQ ID NO:2991

LENGTH:155

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03534

## SEQUENCE DESCRIPTION:

GATCTGATTT ACAAGAAAAA GTCAGAGCTA AACACTAGTG ATGGCATAGC ATTACTGAAA 60  
 TCATTGTTTC TTAATTTTCT TTTACTACAT TGTGAACTTG TGATTCAGAT TCCATTTTCT 120  
 CAGAGAATTA AAAACAAAAA AAGTACTCTT GTAAA 155

SEQ ID NO:2992

LENGTH:156

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03535

## SEQUENCE DESCRIPTION:

GATCTATTTT TNAGTATGTG GTTCATGCTG TTGTGAAAAA TGTTTTACCT TTNACCTTTG 60  
 TCAGTTTGTA ATNAGAGGAT TTCCTTTNAC CCTTTGTAGC TCAGAGAGCA CCTGATGTAT 120  
 CATCTCAAAC ACAATAAACA TGCTNCTGAA GGCAAA 156

SEQ ID NO:2993

LENGTH:154

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03536

SEQUENCE DESCRIPTION:

GATCAAATTA GTAATTNNGT TTATGCTGCT CCTGATATAA CACTTTCAG CCTATAGCAG 60  
AAGCACATTT TCAGACTGCA ATATAGAGAC TGTGTTTCATG TGTAAGACT GAGCAGAACT 120  
GAAAAATTAC TTATNGGATA TNCATTCTNN NCTN 154

SEQ ID NO:2994

LENGTH:154

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03537

SEQUENCE DESCRIPTION:

GATCTCATTT ATAATTAAAT TATGTCTATT GGATTGTTTT NATGTACTT NATGTTTTNT 60  
NAAGAAATTG TGATTAATAA TAACTTAACG ACTTTCTATT TTNCAGTTAT TTTAATTAGT 120  
TACTTCATTT AANCTTTTGG CATTNCATGA TTN 154

SEQ ID NO:2995

LENGTH:153

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03538

SEQUENCE DESCRIPTION:

GATCATATAT GTNTTAGTGG ACAGGGGTCT GAAGTACACT GGAATTTACT GAGAACTTG 60  
TTTGTAAGAA CTATAGTTAA TAATTATTGC ATTTTCTTAC AAAATATAT TTTGGAAAT 120  
TGTATACTGT CAATTAAAGT GTTTTGTGT AAA 153

SEQ ID NO:2996

LENGTH:153

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03539

SEQUENCE DESCRIPTION:

GATCAAATA CACATGNGTT TTCATTCAA AAGTGGGTTT TAAANGCCTG GCTGCATCTG 60  
TATGNAATCA AGGCACACTC CAGGAAGACT GCCGCGTCGC GCCAACACGT CATACTCAAT 120  
GCCTCAGACT TTCATATTTT TGNNGTGCTG NNN 153

SEQ ID NO:2997

LENGTH:152

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03540

SEQUENCE DESCRIPTION:

GATCCCAGCA TCTTCTCCAC TTCAGCGCTG AGTTCAGTAT ACACAAGTGT CTGCTACAGT 60  
 CGCCAAATCA CCAGTATTTG CTTATATAGC AATGAGTTTT ATTTTGTTTA TTTGTTTTGC 120  
 AATAAAGGAT ATGAAGGTGG CTGGCTAGGA AA 152

SEQ ID NO:2998

LENGTH:152

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03541

SEQUENCE DESCRIPTION:

GATCATTGG ATATAGCAAT CTA CTCTGAG AAATGGAACA CAAGGAGTTA CCTATCACTT 60  
 TCACTTATAA TTCCAAAAGA TGACTACAAC CATGTCCATG CTCAGATTCA AACAGTTTTC 120  
 CATATCACTT TTGGGTGGTA ATTACAGTTT TN 152

SEQ ID NO:2999

LENGTH:152

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03542

SEQUENCE DESCRIPTION:

GATCCCTGTN TGCNCGNCCC CTCTGCAATG TATGCCCTT GCCCCTTCCC CACACTAATA 60  
 ATTTATATAT ATAAATATCT ATATGANGCT CTTAAAAAAA CATCCCAACC AAAACCAACC 120  
 AAACAAAAAC ATCCTCACAA CTCGCCAGGA AA 152

SEQ ID NO:3000

LENGTH:151

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03543

SEQUENCE DESCRIPTION:

GATCCAGAAG CAAACACAAG CAATGCAAGA CCTCCACAGA GTGAGCTTGG AGAGAGAGAA 60  
 AGCCAAGATA AGAGAGGAGT ATGANGAGAA ANTCAGAAAG CTGGAAGATA AAGTGGAGCA 120  
 GGNAAAGAGA AAGANGCAA TGGNGANGAN N 151

SEQ ID NO:3001

LENGTH:151

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03544

SEQUENCE DESCRIPTION:

GATCTGGAGA TAANTTTATG CCTTTGGCCA TAGACAGGAC TGAATCCCA GTTCTGCCAC 60  
 TTA CTGGCTG TTTGACCTTA GGCAAGCCAC TCCTCCTTN TNAGCCTCAG TTTCTTNCC 120  
 TGTAAGATAA AAAGAATGAN TCATTACTAA A 151

SEQ ID NO:3002

LENGTH:150

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03545

SEQUENCE DESCRIPTION:

GATCAGGGCT GGGGCGGGGA AACAAAGGAA GGACCTTGA AGGGGCTGNN CCCAGGCCTG 60  
GGGGGCAGTC GTGGGAGCCC CTCTCANCTG TGGGGCTGGC ACAGAGCCCC AGGCAAGCTT 120  
TTAATAAACT GTTGGTTATT CTAACAGAAA 150

SEQ ID NO:3003

LENGTH:149

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03546

SEQUENCE DESCRIPTION:

GATCTCAAAA ATAGGTAATT TTTCTTTGCC GACCTGTAAA AGTGTGCCAA TACACTAAAT 60  
TTGTGATTTT AAATTAATTC CTCCAGCTGT TGAAATGAAG TCTGCCAAAT CTTGCTCTAA 120  
CAATAAAAT GTTATCTAAA TGAAGTAAA 149

SEQ ID NO:3004

LENGTH:149

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03547

SEQUENCE DESCRIPTION:

GATCCTAAAA GGGAAAATTG CCTTGGTAAC TTTNAGATTC CTGTGGAATT GTGAATNCAT 60  
ACTAAGCTTT CTGTGCAGTC TCACCATTG CATCACTGAG GATGAAACTN ACTTTNGTNT 120  
TTNGGAGAAA AAAAAGTGTN CTGCTTGTN 149

SEQ ID NO:3005

LENGTH:242

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03548

SEQUENCE DESCRIPTION:

GATCCTAGGA TGCGTCCCAG ACGCTCAGTC AGAAGTGCTG GAGGTGGGGC CTGGGAAGCT 60  
GTATTTGTAA TNAAGTCTGG NGTTTTTGT CCATTAAAGT GTATCTTGT CCATCCTATA 120  
AGNTTANNGG AAAGAAAAAG CATCTCAAAT NAGTGTAAGT TGTCTTGAG AAAAAAATGT 180  
ATCAGACTTT TATGATTGTA ATGAAATGTA TTATAGNAAA ANATAAACAC NTTTAAANTA 240  
AA 242

SEQ ID NO:3006

LENGTH:148

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03549

SEQUENCE DESCRIPTION:

GATCCAGTTG TACTTAAGTG TGTAACAGGA ATATTTTGCA GAATATAGGT TTAAGTGAAT 60  
GAAGCCATAT TAATAACTGC ATTTTCCTAA CTTTGAAAAA TTTTGCAAAT GTCTTAGGTG 120  
ATTTAAATAA ATNAGTATTG GGCCTAAA 148

SEQ ID NO:3007

LENGTH:148

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03550

SEQUENCE DESCRIPTION:

GATCATCGTG CTCTCAGACT CTGATTAGCT GCCTCCCTT CTCCCTGCCT CCAGAATGTT 60  
CTGGGATAAC ATTTGGAGGA AGGTGGGAAG CAGATGACTG AGGAAGGGAT GGACTAAGCT 120  
AATCCCCTTT TGGTGGTGT TCTTTAAA 148

SEQ ID NO:3008

LENGTH:148

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03551

SEQUENCE DESCRIPTION:

GATCAGTCCA CCCAGAGTTA GACATTGTTT TTGTAGAAAA CAGGTATTTA TTATGTCTAG 60  
GGTTTGTGT TTTTTTTTTT TCCTNANAGG NTAAAAGCCT TTATACAGAA ANAATTTGGA 120  
ACCTTTNATA TAAAACCTTT TCTTTAAA 148

SEQ ID NO:3009

LENGTH:171

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03552

SEQUENCE DESCRIPTION:

GATCGCTGTG GTTCTTATTA TCAAAATTAA GTTTACTTGT ATACGGAACA ACCACAAGAA 60  
ATTTGATTCT GTAAAGAATC CTCTTTAGCT GTGGCCTGGC AGTATATAAA TGGTGCTTTA 120  
TTTAACAGAA TACCTGTGGA GGAAATAAAG CACACTTGAT GTAAAANTAA A 171

SEQ ID NO:3010

LENGTH:145

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03553

SEQUENCE DESCRIPTION:

GATCTTTTAA TTTTGCAATC CTGGGCCAGC TAGAAGCCAG GAGCTGATTG ACCTTTTAA 60  
TTTTTTCAGT GGCCACATTT TGGTTATCGA TGTACCTAGA AGTATGTAAA TNAGATTAAA 120  
TTTCTCTTCT GGAAACACCC TGA 145

SEQ ID NO:3011

LENGTH:144

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03554

SEQUENCE DESCRIPTION:

GATCATAGAG AATGGTGCTT TTTACTACAG TTAGCACATG CATTTTTAGA AACTACTACA 60  
TGTTTTAGAG AATCTTTGCT GTGTATATGT AAAGTGTATT GTTCAACTGT TAACAAATAA 120  
TAAATTATTT CATTATTAAA GAAA 144

SEQ ID NO:3012

LENGTH:144

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03555

SEQUENCE DESCRIPTION:

GATCTGCCCT NCTCCTTCTA AAGGGTAAGT CATAATCTGT GTAATACTAC AATTNATGGG 60  
NTGCTCACTA TGCCCTGTTT CTNTNCTAAA CAATTTACAT GTAATGTCTC ATTCCTCACA 120  
ATAACCCCTG TAAAGTGGGC ANNN 144

SEQ ID NO:3013

LENGTH:142

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03556

SEQUENCE DESCRIPTION:

GATCCCCAGC TGCCTCACTT CTCTCTTGAG AACTTGGCTC AGGGCTCCTG AGGACCTTTC 60  
CCAGCATTAC CTTCCCTTCC CTTGAAAGGC AATTGTTGGC TGTTTTCATA AGCAGGAAAA 120  
NTAAACAGAA GTATAAAGGA AA 142

SEQ ID NO:3014

LENGTH:142

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03557

SEQUENCE DESCRIPTION:

GATCAAATGT GCCTTAATAA ATTTNTTTTC ATTTAGATT CAAACAGTGA TAGACTTGCC 60  
ATTTTAATAC ACGTCATTGG AGGGCTGCGT ATTTGTAAAT AGCCTGATGC TCATTGGGAA 120  
AAATAAACCA GTGAACAATA AA 142

SEQ ID NO:3015

LENGTH:147

TYPE:nucleic acid

TOPOLOGY:linear



CLONE:HUMGS03558

## SEQUENCE DESCRIPTION:

GATCTAAAGA AACAGTTGGC TGTAGCTGAG GGGAAACCCC CTGAAGCCCC TAAAGGCAAG 60  
 AAGAAAAAGT AAAAGACCTT GGCTCATAGA AAGTCACTTT AATAGATAGG GACAGTAATA 120  
 AATAAATGTA CAATCTCTAT ATACAAA 147

SEQ ID NO:3016

LENGTH:140

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03559

## SEQUENCE DESCRIPTION:

GATCCCAGCA ATGAACTGTT CTAGGGAAAG TGGCTTCCTG CCCAACTGG ATGGGACACG 60  
 TGGGGAGTGG GGTGGGGGGA GCTATTTCCA AGGCCCTCC CTGTTTCCCC AGCAATTAAA 120  
 ACGGACTCAT CTCTGGCAAA 140

SEQ ID NO:3017

LENGTH:153

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03560

## SEQUENCE DESCRIPTION:

GATCTCAGCT TTGAGAAGCC TTCAGCTCCA GGGAAATCCAA GCCTCCACAG CGAGGGCAGC 60  
 TGCTATTTAT TTTCCTAAAG AGAGTATTTT TATACAAACC TACCAAAATG GAATAAAAGG 120  
 CTTGANGCTG TGGCCTGAGT GCCTCACTGG AAA 153

SEQ ID NO:3018

LENGTH:134

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03561

## SEQUENCE DESCRIPTION:

GATCACGAAG GTGGTTTTCC CAGGGCGAGG CTTATCCATT GCACTCCGGA TGTGCTGACC 60  
 CCTGCGATTT CCCCAAATGT GGGAAACTCG ACTGCATAAT TTGTGGTAGT GGGGGACTGC 120  
 GTTCGCGCTT TAAA 134

SEQ ID NO:3019

LENGTH:131

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03562

## SEQUENCE DESCRIPTION:

GATCTATCTT NCAGAAAGTA TGTTTTTCCT CATAAAAGTG CCTCTTAATT GGCCATTGTA 60  
 CCAGCCACTT GTCCTAGCCA AATGTCCAAA ACACGCCCTT GGGCCCCGCC ACGTTACAAT 120  
 CCACANNNNN N 131

SEQ ID NO:3020

LENGTH:131

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03563

SEQUENCE DESCRIPTION:

GATCACTGTN ATGTGTGGTC CATCTCTGAC CAAAACGTTA TGCAGTACGT GACTGTATCC 60  
TNATCCTCAA TAATCCTTGG TTATTATTCT AGAATTTCAA ATAAATGGAA TCATATCATT 120  
TACTATGTAA A 131

SEQ ID NO:3021

LENGTH:207

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03564

SEQUENCE DESCRIPTION:

GATCCAGTGA ATGATTCAAG AGAGCTACAT TTGAAGCCTG TACAAAAGCT TATCCCTGTA 60  
ACACATGTGC CATAATATAC AAACCTCTAC TTTCGTCAGT CCTTAACATC TACCTCTCTG 120  
AATTTTCATG AATTTCTATT TCACAAGGGT AATTGTTTTA TATACACTGG CAGCAGCATA 180  
CAATAAANCT TAGTATGAAA CTTTAAA 207

SEQ ID NO:3022

LENGTH:130

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03565

SEQUENCE DESCRIPTION:

GATCCTGAGA ATTACTTTTA ATAAATCAT TTTTGTGCTG TTATTAACAA TAGNCNNGAA 60  
TTGCCTAAAN CCAAGAACTC TGCTTGATAA AATAAGCATA GTNTTAGGAA CAGCCATGCA 120  
GATATAANTN 130

SEQ ID NO:3023

LENGTH:129

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03566

SEQUENCE DESCRIPTION:

GATCATCGAC CCCCAAGGGA CCCGCAGACC CTTAAAAAAA TCACCCACAA CCCTCTGGAA 60  
GTGGCCTTGC CCGGTCCTCC TCCCAGGGGC GAGGTCGGCA AAGCAACATG GCAGAGCAGT 120  
CATAGGAAA 129

SEQ ID NO:3024

LENGTH:129

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03567

SEQUENCE DESCRIPTION:

GATCACCTTT TTTTATGC GTTGTGAATA GCAGTCTGCA TCCTAAGTTT AAAATATTTG 60  
AGAATCCTCT ATGGGACTCT CTGTAAATNT TTAAATACT GTTGTTTTCA ATAAATATTT 120  
TATACTAAA 129

SEQ ID NO:3025

LENGTH:129

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03568

SEQUENCE DESCRIPTION:

GATCAGCTGT CCTCTCTGAA AAAAATTGCA CCNNTTTTC TTTTAAAA TTTGTTGCA 60  
TCTTCGTAGT AATGTAATTG TATTTTATGC CTGCTTTTT ATAAAAAAT AAAATAAAAT 120  
AAATGAAA 129

SEQ ID NO:3026

LENGTH:129

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03569

SEQUENCE DESCRIPTION:

GATCTAAATN TGA CTGTGGT TGCACATATC TGTGNATATA CTAAAAACCA NTGATTTGTA 60  
CACTTTACAT GGGTGAGTTG TATGGTGTGT GAATTATATT TCAATAAAGC TGGGTTGTTT 120  
TTGTCAAN 129

SEQ ID NO:3027

LENGTH:140

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03570

SEQUENCE DESCRIPTION:

GATCCCAGGA TTCAGTATTC CTGGCCCAGA GGNCTTGCT GGCTACTGGG TGTTAGTTTG 60  
CAGTCCTGTG TGCTCCCTC TCTTATGACT GTGTCCCTGG TTGTCAATAA AATATTCCT 120  
GGCCTCCTGG AATCTNTAAA 140

SEQ ID NO:3028

LENGTH:127

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03571

SEQUENCE DESCRIPTION:

GATCCTACGA CAGGACCCAG ATGCCAGTGA AAGTGACCAC AGCCCTGCTC TAGTCACCCC 60  
GGAAGCTGAC CAGTCTACGC ACGGCCGAAG CTTCGTCAAG GAAGTAAATG TAGTTAGAAA 120

TCTTAAA

127

SEQ ID NO:3029

LENGTH:223

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03572

SEQUENCE DESCRIPTION:

GATCTAGAGT ATAAGCTGCG CAAGGGCAGA AGTTTTTATC TGGTTTGTTT ATGGATGTAT 60  
 TCTAAGAGCT GAGAACAGGG CCTGGACACA ATAAGCATT C AATAAATATT TACTGAATGA 120  
 ATGAACTCCT ACCTATATTC CTATTTATAA TTTGGCTCCA CTTTATCCTA CTTTAGCTCC 180  
 CATTCAATTC AATAAAAAAA ACATTTTTTN GNACACATAT AAA 223

SEQ ID NO:3030

LENGTH:132

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03573

SEQUENCE DESCRIPTION:

GATCCATCTC AGTCACTTTT TCCCCTGCAA TCGTCTTGT GAAATTGTGT AGAGTGTGTTG 60  
 TGAGCTTTTT GTTCCCTCAT TCTGCATTAA TAATAGCTAA TAATAAATGC ATAGAGNAAT 120  
 TAAACTGTGA AA 132

SEQ ID NO:3031

LENGTH:123

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03574

SEQUENCE DESCRIPTION:

GATCCAGTTT TNCTACAAAG AACAAAGTGG TTGACAACAG TGACAGTAAT TNCTGGAGCA 60  
 AAACCAAAAG ACATAGGTAA AGANCATATA ATTGTTAATA AAGCACACTG CTTTCAACAC 120  
 AAA 123

SEQ ID NO:3032

LENGTH:124

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03575

SEQUENCE DESCRIPTION:

GATCCAAGTG TTTTAACAAT TGGGGCTGTT AAGTCTGACC ATACATCACT GTGATAGAAT 60  
 GTGGGCTTTT TCANGGGTGA AGATACAAGT CTTAACCACA GTGTAACCTA CAGTTTCCTT 120  
 TAAA 124

SEQ ID NO:3033

LENGTH:270

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03576

SEQUENCE DESCRIPTION:

GATCAGAGCA AGCCTTGCCT CTTATCTTCG GGAAACCAGA ATATGTTTGG GGTGGTAGGA 60  
 GCCACACAGA CTCTTCTGAG CCCCTCACT CACTTCCTTC CCCCTGTGCC TTTCCTTTGA 120  
 GAGTGAAGGT GGGTNGAGTT GACCAGAGAA AGGGGAGAGA ATTCTGGGAAA GACCCAAAGT 180  
 NTTTGTAATT CTTCTTTGTC CTTTACCTA CAGAAATGGT CACATGGTTC TATTTAAATA 240  
 GCCTAATAAA CACATCTGGA GCCTGTCAAA 270

SEQ ID NO:3034

LENGTH:127

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03577

SEQUENCE DESCRIPTION:

GATCTCAAAG ATACACAGTA CCTACTTAAT TCCAGCTGAT GGGAGACCAA AGAATTTGCA 60  
 AGTGGATGGT TTGGTATCAC TGTAATAAA AAGAGGGCCT GCGAATTCTT GCGATTCCAT 120  
 CTCTAAA 127

SEQ ID NO:3035

LENGTH:120

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03578

SEQUENCE DESCRIPTION:

GATCCCTACC TGCTCCCCGC TCCGGTTGCC AGCAGCACTC ACTGCACTCC TTTGTCATAT 60  
 ACTCTGCATC ACTGTCATAC TCACANCTTC GTGAATAAAG TTGTGTGCTT TATTCGTAAA 120

SEQ ID NO:3036

LENGTH:120

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03579

SEQUENCE DESCRIPTION:

GATCAGGGAC CTCACGCATC TTTTCTCAT ATACATGGNC TCTCTGTTGG CCTGCAAACA 60  
 CATTNCTTC TCCGCTTATN AGACTATTTA NCTTTAATAA AGCACTGGAT ATAAATCAAA 120

SEQ ID NO:3037

LENGTH:176

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03580

SEQUENCE DESCRIPTION:

GATCTAAAGC TNAACAATGA AAATCTTCAG CAGAAATAGA AATNGCCGTG GATTGTAATA 60

CACACTGAAA TTCTNACTTT CTGAATTTAA ATGTAGAATA AATTNACCA ACTTGGAGTA 120  
CTGTATGAGT ATTCNAGTA GGGGGAATAA ACTCAAANTT ATATTNTNT TGCAAA 176

SEQ ID NO:3038

LENGTH:119

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03581

SEQUENCE DESCRIPTION:

GATCTGAAAT GTCTGAGAGT AATAGTTTCT GTTGAATTTT TTTTGTTCA TTTTCTGCA 60  
CAGTCCATTC TGTTTTNATT ACTATCTAGG CTTGAAATAT ATAGTTTGAA ATNATGAAA 119

SEQ ID NO:3039

LENGTH:234

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03582

SEQUENCE DESCRIPTION:

GATCAGAATA TGACATTGCA GTAAAGNGCT TAAATAGTTT CATCTNTGGT TTTTTTTTCT 60  
AGACACTTTT CTTTTATCCC AGNCATCTCT GAATTACAT TTTATATTAA AGAAATTGAG 120  
CTATCCATAC AACCTGTATT TACTTTAATT TCACTATGCT TTCAGCTTAC TTTATTGTAT 180  
GNTATGTAGG TCTAAATAT AGTTTGAGTC AAATAAAATT AGGGGGGCTT TAAA 234

SEQ ID NO:3040

LENGTH:132

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03583

SEQUENCE DESCRIPTION:

GATCATGACA CTNAAGCGTG ATGAGACGCT CCAGGATGGC TGTNATACTC ACTTCTGCAA 60  
GGTCAATGAG AGAGGAGAGT ACTTCTGGGN GAAGAGGGTC ACAGGCTNCC CACCCTTNA 120  
TGAACACANG TN 132

SEQ ID NO:3041

LENGTH:118

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03584

SEQUENCE DESCRIPTION:

GATCCCTAAA AATGTTGAGG GACTTCTGTT CATTATCCC GAGAACATTG GCTTCCACAT 60  
CAGATATCT ACCCTTACAT GGTTAGGAT TAAAGCCAGG CAATCTTTTA CTATGAAA 118

SEQ ID NO:3042

LENGTH:117

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03585

SEQUENCE DESCRIPTION:

GATCGGACCG TTCATGCTGC CTATAGGCAT TATGTCCCTC AAAAAAAAAAC TCCTTNCCT 60  
GCATCCTGTG TACAACATGA CATTTTAAAC CAATCCAATC TAAAAATGTN CCAGAAA 117

SEQ ID NO:3043

LENGTH:117

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03586

SEQUENCE DESCRIPTION:

GATCAGAAAGT GGCAGTCTAT AACTNAAAAT GTGGTAAAGT ACTTGANGCA AACATCCCGC 60  
ATCGCTGTTG GACCTCTNAN ACTTTCTACT TTAACAGTTT CACAGTCTTT NCCAGTN 117

SEQ ID NO:3044

LENGTH:116

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03587

SEQUENCE DESCRIPTION:

GATCTCTCC ACCCTGTACC AGGCAGCAGC TCCAGTCTC ACACCAGCCA AGGTCACAGG 60  
CAAGAGCAAG AAGAGAACT GACCCTGAAT GTTCAATAAA GTTGATTCTT TGTAAG 116

SEQ ID NO:3045

LENGTH:116

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03588

SEQUENCE DESCRIPTION:

GATCTGAAAT CNNGGTCTTC CAAGGNAGAA AATCGANCTG GGAATAAAG AGAAGACCTG 60  
TGATGGGGCA GCAGTGACGC NCTGTGGGGG GACAGGTGGA CGTGGAGAGC TCTTTN 116

SEQ ID NO:3046

LENGTH:116

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03589

SEQUENCE DESCRIPTION:

GATCTGAAG AAATCATATG TTAAACATAC TTTNACACCT ACTGTGTTAT AAAATATATC 60  
ATCAGATGTG CCTTGAGAAT AGTATATGTA ACATTAAAAA AAAGTTGCTG GCTAAA 116

SEQ ID NO:3047

LENGTH:115

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03590

SEQUENCE DESCRIPTION:

GATCCTTGGA CTTTGTGTTT TTGATTNTAT GTTGATATTC TAAAAACATC TATTTTAATG 60  
TTATTTCTGT TCTAAAAATA AGATAATAAA TATTAACAAA CTTTGCTTTT TTA AAA 115

SEQ ID NO:3048

LENGTH:179

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03591

SEQUENCE DESCRIPTION:

GATCTCAACA AGAAGCTGTA TTTTAAGTAT TAAGACAGTT CTTTGTTAGC TGGTTTCTAG 60  
TTGGTTATCT AGTTACCAAT GCTGCAGTCC TGCAGTCACC TATACATTAT TTAAATNTAT 120  
TTAACTGTGA AATGCGCTAC CCACCAATAA TGAAATAGAC CTTTATGAAA ACTGTGAAA 179

SEQ ID NO:3049

LENGTH:239

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03592

SEQUENCE DESCRIPTION:

GATCCTGAGG AAAGACTTGG AAGAGACCAG CATGTCTTCA GTAGCCAAAC TACTTCTTGA 60  
GCATAGATAG GTATAGTGGG TTNCTTGAG GTGGTAAGGC TTTGCTGGAC CCTGTTGCAG 120  
GCAAAAGGAG TAATTGATT AAAGTACTGT TAATGATGTT AATGATTNT TTTAAACTC 180  
ATATTATTGG GATTTTCACC CAAAATAATG CTTTTTGAAA AAAGGAAAAA AAAACCGGN 239

SEQ ID NO:3050

LENGTH:114

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03593

SEQUENCE DESCRIPTION:

GATCTTGGCT TTCTNTTCC TCTTCTCCTN CAGGGTGTCT GTNACTGCNN GGTACTTCCA 60  
GCCAACCTCG TGAGCCAGGC GCCCAGATA GGCAAACCTT CTTGTAGGCT TCAN 114

SEQ ID NO:3051

LENGTH:113

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03594

SEQUENCE DESCRIPTION:

GATCTGTATA TGCTATCCTA ACTGTTAATT GTATTATTGA TTATNTTGAT TATCTTGCTT 60  
GAAGGTTTCACTTTTCAAT TTGATAGAAA TAAAGTTTTT NCCTGCTTAT AAA 113



SEQ ID NO:3052

LENGTH:113

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03595

SEQUENCE DESCRIPTION:

GATCCTCTCT TCATTTTACT CAGCCAGGTT TTGTACTGAT GTACAGGTGT TAAATNACTT 60  
CAAGTATTTT TGTAAGAGGT GTATATAATT CAATAAAAAA GGTAAACAT AAA 113

SEQ ID NO:3053

LENGTH:161

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03596

SEQUENCE DESCRIPTION:

GATCGACAAG GAGTACTTGC TAAAAATGGC AACAGAGGAG TGAGGAGTGC TGCTGTAGAT 60  
GACAACCTCC ATTCTATTTT AGAATAAATT CCCAACTTCT CTTGCTTTCT ATGCTGTTTG 120  
TAGTGAAATA ATAGAATGAG CACCCATTCC AAAGCTTTAA A 161

SEQ ID NO:3054

LENGTH:111

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03597

SEQUENCE DESCRIPTION:

GATCCGNACC CCAAGCCCAT GCAACCCACG CTCGGTCCCG TTCCGGCCCC TGCNCCCCGC 60  
TGCNCTTCGC TCCCGNCCT TGCNCCGTTA GTAAACATCG CTCAAACGAA A 111

SEQ ID NO:3055

LENGTH:110

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03598

SEQUENCE DESCRIPTION:

GATCTAACAA GTTACATTGT ATAGTTTCTG GGACTGTTTG AATATTCTAT TCCAATGGGC 60  
ATTTATTTT TATCCTGTCA TTAAAAAAA AAGACTGTTA CCCTGCTAAA 110

SEQ ID NO:3056

LENGTH:109

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03599

SEQUENCE DESCRIPTION:

GATCTCCTCC ATCCTGCTGC CCACCCCTCT TGAGTGTCTT AAGGGACAGA NCTTCCACC 60  
CCTGGAAGAT GGAAATAAAC CTGCGTGTGG GTGGAGTGT AGGACCAA 109

SEQ ID NO:3057

LENGTH:109

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03600

SEQUENCE DESCRIPTION:

GATCAGAGTG TTNTAAATCA TCACGCCCTT AGCTTATCCC TNGTCGAGCC AGGACACGGG 60  
GTGCTTCAGT GGGTCTGTNA CCCTCTCTCC TTGAAGCATG TTGCTGNNN 109

SEQ ID NO:3058

LENGTH:108

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03602

SEQUENCE DESCRIPTION:

GATCCCTGAA TGTGAACCTG AAGTTCAAAG GACTTGAAAA GCTCTGGAAT GTGTTGGTTT 60  
TTCCCCCACA AAATGGGTCC TAAGGAGGGT AAAGTGACTT GTTCAAAA 108

SEQ ID NO:3059

LENGTH:108

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03603

SEQUENCE DESCRIPTION:

GATCAGTTTC TTTNGCTTCA AGATTGAAA CCAGAAAGGA AAGTCCNACT TGCAGATGAT 60  
TGTCTTAAA ACCTAATGGA AAANTAAAAG ANAGACATAC CATGAAAA 108

SEQ ID NO:3060

LENGTH:107

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03604

SEQUENCE DESCRIPTION:

GATCCATCAT TGTTCAAAA CTTCACTGTC AAGAACCTTT TCGTTGCATA ATGTGCAAAT 60  
AGTTAAAACC ACTGTACTAT ATACTTAAAA ATGATTAAGA TAGTAAA 107

SEQ ID NO:3061

LENGTH:252

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03605

SEQUENCE DESCRIPTION:

GATCTGGCAG CTGAGGCCCG AGGCAGGGTT GGNGTGATGC CAGGGCAAAG TGGTGAGGAG 60  
AAAACAGGAA NCGGGCTTTC NCCNCATTGG TAAATGGGAA AGAGGTGAGC AACTTAAGAT 120

TGTCACAATT AATCACAAGT GTACAGGATT AGACTGGGTT TATATTTAAC TCTTGCTNCA 180  
TAGGTGTACC ATTTAAAGAG TGTATTATA TGCTAAGTTT AACTGCTTTA ATAAAGTTTA 240  
TTTTTAAATA AA 252

SEQ ID NO:3062

LENGTH:103

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03606

SEQUENCE DESCRIPTION:

GATCAACAAA ATAAGTTGTA TCTCCTGCTT AANTCCTTTA TACTACCTGG NGAAAAGTAT 60  
TTCCCATATT TCCAATAAAT GTCAGACACT ATTGAGAAAG AAA 103

SEQ ID NO:3063

LENGTH:103

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03607

SEQUENCE DESCRIPTION:

GATCCTGNAT NANGCCCGGG CCAGCGAGTG CAGGGACGTG GAGGGNTTCA AAACCGAGAT 60  
GGCCATGCTG GTGACCCAGG CCAGGAAGAA CACCATCACC CNN 103

SEQ ID NO:3064

LENGTH:159

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03608

SEQUENCE DESCRIPTION:

GATCCTCACA GTCAAGTGAC GAGGCTGGGG CTGAAAGCAG AAGCATGCAC AGGGAGGAGA 60  
CCACTTTTAT TGCTTGCTTN GGTGGATGGG TCAGGAGGGT CTGAGGGCCT GTCCAGACA 120  
ATAAAGGTNC CCTCAGCGGA TGTGGGCCAT GTCACCAA 159

SEQ ID NO:3065

LENGTH:102

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03609

SEQUENCE DESCRIPTION:

GATCCTATCG CCTTNAGTA GAATATGAAA TATTCTTTNA GAAATCCAAT ATAAATAGGT 60  
TATAATAGCC ATATNCTTNA TNACTTTATT GAGATATAAT TN 102

SEQ ID NO:3066

LENGTH:186

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03610

## SEQUENCE DESCRIPTION:

GATCTNAGCT CCCACCTCCC TTCCACCTA CTGCACTTTC CCCCTTCCCG CCTTCAAAA 60  
 CCTGCTTCCT TCAGTTTGTA AAGTCGGTGA TTATATTNT GGGGGCTTTC CTTNATTN 120  
 TAAAATGNAA AATTATNTA TANTCCGTAT TTAAAGTTGT AAAAAAATA NCCACAGAAC 180  
 AGNGAN 186

SEQ ID NO:3067

LENGTH:100

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03611

## SEQUENCE DESCRIPTION:

GATCTCAGAC AGTGTGCGGC GGCACATGAG CGGCTTTCGG CAGTGTCTG TNTTGAGCCA 60  
 CTGCAGTCTG GGCCCCATCA TTAAACGGGC TCGGTTTAAA 100

SEQ ID NO:3068

LENGTH:98

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03612

## SEQUENCE DESCRIPTION:

GATCTCCAGT NAGACTCCAG GGTTCAGAC AGAGGCCAGT NTTGGCCACT CACCCACAC 60  
 CCCGCGGACC CCAATAAAGG CTGTCATAGC TCCAGAAA 98

SEQ ID NO:3069

LENGTH:98

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03613

## SEQUENCE DESCRIPTION:

GATCCTGAAG CTTNACCGGG CTCAAAGGG CAAATGGAGC TGCCCTCNTC TGTATCAGGT 60  
 TTATTGGTTG TACATATAAA TNATACTTNC CTTTCAAA 98

SEQ ID NO:3070

LENGTH:107

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03614

## SEQUENCE DESCRIPTION:

GATCCTGTTT AACAAAGATA CTTGAGACAT CCATTGTTT TAATGAAATC TGTATGGATA 60  
 TGGAAATNCT TGCCCTAATA AAAGCCTACA TATACCTTCT GGTAAAA 107

SEQ ID NO:3071

LENGTH:97

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03615

SEQUENCE DESCRIPTION:

GATCTNTCCG TTCTCAGGCC AGACCCCTGG TGCTGCCGTT AATTTTTTTT TCTCTGTCTT 60  
TGCTGCAATN TTNAAATAAA ATGCCAAAGA ACACAAA 97

SEQ ID NO:3072

LENGTH:95

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03616

SEQUENCE DESCRIPTION:

GATCCTAAAC AAATCATCTT TGTCAGTTAA GTATAGTTGC GCAAAAATTG TTAAATCCTT 60  
TGTCTTTATT AAAGAAAAAT TTGAGTAACA TTAAG 95

SEQ ID NO:3073

LENGTH:94

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03617

SEQUENCE DESCRIPTION:

GATCTAAGTG ATGAGTCTAG GTGTGTTATT GTNCAGTTTT TNCAACTTTC CTGGAAAACG 60  
AACTTTTCAA AATAAAAAAT TGGAAAAATA GAAA 94

SEQ ID NO:3074

LENGTH:183

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03618

SEQUENCE DESCRIPTION:

GATCACTTTG AGAAACAAAC TTTTATTAAA TGTAAGGCAC TTTTCTATGA ATTTTAAATA 60  
TAAAAATAAA TATTGTTCTG ATTATNACTG AAAAGATGTC AGCCATTTC AATGCTTGGG 120  
AAACAATTTT TTGTTTTTGT TCTGTTTTCT TTTTGCTTCA ATAAACAAT AGCTGGCTCT 180  
AAA 183

SEQ ID NO:3075

LENGTH:92

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03619

SEQUENCE DESCRIPTION:

GATCTGCCAT ATTTGNTNTT GGTTTTAATT TTCATATCCA GCCTAAAGGT GGTGTTTAT 60  
NATATAGTAA TAAATCATTG CTGTACAATA AA 92

SEQ ID NO:3076

LENGTH:92

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03620

SEQUENCE DESCRIPTION:

GATCAGGCTG CCTCCTGGNT TGGNTGTCGG GGGAGCTGTC CGGCAGCCTG GCAGGGAGAT 60  
GCAAGGCCTA AAGTAAAATT TTNTCAAGTA AA 92

SEQ ID NO:3077

LENGTH:91

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03621

SEQUENCE DESCRIPTION:

GATCTAGCCC CTCTTCAGG CCGAGAGAAT TTCGAGCGTT ANCCGTCTCT TGGCCACCAG 60  
CTAAATAAAC GGATTCTTCA TGTGTCTCAA A 91

SEQ ID NO:3078

LENGTH:91

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03622

SEQUENCE DESCRIPTION:

GATCTGCTAT TGTATTCTT CCTCTTTATT GGAAAAAGGC CTCAGTTTAA ATTATTTTCT 60  
TCCCAAAATA AATNACACAT TTGGTTACAA A 91

SEQ ID NO:3079

LENGTH:239

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03623

SEQUENCE DESCRIPTION:

GATCCTGCAT CAGCATTGTA TATATGGNCT TAAGTGCTG GCCTCCTTAT CCTTCAGAAT 60  
ATTATTTNA CTTACAATCC TCAAGTTTAA ATTGATTTTA AATATTTTCC AATACAACAG 120  
TTTAGGTTTA AGATGACCAA TGACAATGAC CACCTTGCA GAAAGTAAAC TGATTGANTA 180  
ANTAANTCTC CGTTTNNITC ANTTNATTC AGTGTAATGA NAANGTTGCT TAGTATTTN 239

SEQ ID NO:3080

LENGTH:196

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03624

SEQUENCE DESCRIPTION:

GATCCCTGCC CTGCACCAGC ACCCTGANAT GGAGCTGAGA CTTTATTTAT TGGGGGTAGG 60

GGGATGGAGG AGGTCCCTCC AACATGTTTG GACCCAGCTC CTTTGGGTTT CACTGACACC 120  
CCTGCCCCCTG CCCCTGCCCA GAACCAAGTG CCATTTCTCA CTCTGGAGCC TTAATAAACT 180  
GCAATTTGTA TCCAAA 196

SEQ ID NO:3081

LENGTH:90

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03625

SEQUENCE DESCRIPTION:

GATCTGTGTA CTGTTTACTT CCCACTTCCC AGAATCCCTT GTATCTCCTT TCTCGGGAAT 60  
TGTATTTTCT AATAAATGAC ATTTGAGAAA 90

SEQ ID NO:3082

LENGTH:90

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03626

SEQUENCE DESCRIPTION:

GATCTCTGGA AGTGTAATTN TGAAAGAAAC TTNCTTGCAG CTTTAACAAA ATGAGAAACT 60  
TNCCAAATAA AACTTGTTTT GAAGTTTAAA 90

SEQ ID NO:3083

LENGTH:89

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03627

SEQUENCE DESCRIPTION:

GATCCTCGGG AAGAACAAAG CTAAAGCTGC CTTTTGTCTG TTATTTTATT TTTTGAAGT 60  
TTAAATAAAG TTTACTAATT TTGACCAAA 89

SEQ ID NO:3084

LENGTH:88

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03628

SEQUENCE DESCRIPTION:

GATCAATCTT TGATGGTGAG GGTTTTAGAA AGGAAAAATA TAGTAAAATG TGTAATTTGT 60  
CTTAATAAAA TCTATCTNTA CATCTAAA 88

SEQ ID NO:3085

LENGTH:94

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03629

## SEQUENCE DESCRIPTION:

GATCTAGATT GGGTGAGGGG GACGGGGATG TNAGGGAGGC AAGTGTGTTN TGTTACTGTG 60  
TCAATAANCT GGTTTAAAGT TGTAAAGTGN GAAA 94

SEQ ID NO:3086

LENGTH:89

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03631

## SEQUENCE DESCRIPTION:

GATCTGAATT TCACAAAAAG TTCATGGAGA AATATATTAA ATAGTACAGT TTTATGTGCT 60  
TAATTAAAGA CTGTAAAACG TAAAGGAAA 89

SEQ ID NO:3087

LENGTH:84

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03632

## SEQUENCE DESCRIPTION:

GATCATACCA CGGCACTCCA GACTGGGGAC CAAAGTGAGA CCTGTGTTCT AAAANTTAAA 60  
ATATTTAGAA TGTTTCCTAG CAAA 84

SEQ ID NO:3088

LENGTH:82

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03633

## SEQUENCE DESCRIPTION:

GATCCCAAGG ATGGAGAACA ACTTACCCAG TAGCTAGAAT GTTAATGGCA GAAGAGNAAA 60  
CAATAAATCA TATTGACTCA AA 82

SEQ ID NO:3089

LENGTH:81

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03634

## SEQUENCE DESCRIPTION:

GATCTCCAGA TGTGCATTTCT CCTCTCTTAT TTAAAGTTAT GTTAAGATTA CTAAAACAAT 60  
AAAAGCTCCT AAAAAATCAA A 81

SEQ ID NO:3090

LENGTH:79

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03635



## SEQUENCE DESCRIPTION:

GATCCAACCG TGCCTGAAGC TAGAATATCC CCTGGACTTT TCAGTTATGT GAACCAATAA 60  
ATACCCTTTT TTGCTTAAA 79

SEQ ID NO:3091

LENGTH:78

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03636

## SEQUENCE DESCRIPTION:

GATCTGNGAN ATATTATGGT AATTGTGTGC GGGCGCCATG AACCGCACCC ATATAACACG 60  
GTAAACTTAA TCAGCAAA 78

SEQ ID NO:3092

LENGTH:77

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03637

## SEQUENCE DESCRIPTION:

GATCATGCTG AAAACCACTC AAACGATTAT ATTTTITACA TTATAAGAAG TAAAATATAT 60  
TATTCTGAAT AATGAAA 77

SEQ ID NO:3093

LENGTH:75

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03638

## SEQUENCE DESCRIPTION:

GATCTGTGCA TTGCTCCTTC TGATTTGTGC TAAGTTGTTA AATAAGAGGG ACCCTGAGAA 60  
AGGCCTTACT CTAAA 75

SEQ ID NO:3094

LENGTH:75

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03639

## SEQUENCE DESCRIPTION:

GATCACACAG CTAACGAGGC TGCCTCCAGC ATTCCTGAT TTCCTCTGTG GTAATAAAAG 60  
CTTTCTGTGC TTTAA 75

SEQ ID NO:3095

LENGTH:78

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03640

## SEQUENCE DESCRIPTION:

GATCAGAACT TACAAACCAA ACTTTTATTC TGAGAACTG GCTGTACAAT ATNTGAAAAG 60  
AAAGTGACAT GNAGGAAA 78

SEQ ID NO:3096

LENGTH:74

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03641

## SEQUENCE DESCRIPTION:

GATCTTTTNN AAGTNTTCTG AAAGGAAGTA GACAGTATTA CACCCTGAAT AAATAAGGTG 60  
TTGTTTTCCA CAAA 74

SEQ ID NO:3097

LENGTH:267

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03642

## SEQUENCE DESCRIPTION:

GATCTACTTC CCATGCAGAA GAGAAGTCAC ATCTTCAGG GAATCGCAAT GTTGTGGCGT 60  
CTGACTTGTA TGTCACATTT GTGTAAAATG GTATATNCTT TAAAATAGTG TTGATAACTG 120  
GAATATTGTA TGTATGCTTG GAGATGCTTT GTGTGAACCT AAGACTGTCA CTCAACAGAT 180  
GTTGGATTGG GGNAAATCCA AAGCACAAC TCAAANTAAN NTACATTTTT AGGTTTCGAT 240  
GCTGCAAANC ANANAANANN ACANNAN 267

SEQ ID NO:3098

LENGTH:73

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03643

## SEQUENCE DESCRIPTION:

GATCATGGTG ATGTACGGGG TGAATTCTCT TGCCGTGTTG CAAATGTGTA AAATAAAGAT 60  
TATCTGGCAG AAA 73

SEQ ID NO:3099

LENGTH:71

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03644

## SEQUENCE DESCRIPTION:

GATCCNAGNT CTANCGTCAT ATAATCATTT AATATAATTA AAGTTTAATT GCTGAAATAC 60  
TTATAATGAA A 71

SEQ ID NO:3100

LENGTH:69

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03645

SEQUENCE DESCRIPTION:

GATCATGCAA TTCCTTCAAT TATGATGGAA AGACTTGAAC TTTCTGAAAT AAAACAAAA 60  
TACAGCAAA 69

SEQ ID NO:3101

LENGTH:67

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03646

SEQUENCE DESCRIPTION:

GATCCATTTA TTGCAATTCA TGCTGAATCT AAATTATAAA ATTTAAAATT AAATGCATAT 60  
CCTCAAA 67

SEQ ID NO:3102

LENGTH:65

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03647

SEQUENCE DESCRIPTION:

GATCCGAAAC CTGTAAACA ATAAGATGTG TTCTCGGAAA ATNAAACAAG AGGTATCACA 60  
AGAAA 65

SEQ ID NO:3103

LENGTH:64

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03648

SEQUENCE DESCRIPTION:

GATCATCTCT TCTCCATAAG ATAGTGTGAT AAACACAGTC ATGAATAAAG TTATTTTCCA 60  
CAAA 64

SEQ ID NO:3104

LENGTH:64

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03649

SEQUENCE DESCRIPTION:

GATCGCTCCA ATAAACATAT ATTGTGAAAA TGCATCCACA ATAAATGGAA TTCCTTCCTG 60  
CAAA 64

SEQ ID NO:3105

LENGTH:63

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03650

SEQUENCE DESCRIPTION:

GATCTACCTG TCTGTTGCC ACATGTTCT AAAC TTCCA ATAAATCACC TTCTACTGAC 60  
AAA 63

SEQ ID NO:3106

LENGTH:68

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03651

SEQUENCE DESCRIPTION:

GATCAGCATC AGGCTGTTAT CAAGTCTGTT GGTGCTAAAA AGTAAAAAT GAAATGTTCA 60  
AAGAGAAA 68

SEQ ID NO:3107

LENGTH:58

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03652

SEQUENCE DESCRIPTION:

GATCTGTCTG GCTCCNTTGT TTCTTATTAA ATAAATTCT GTCTTCTATT GTTCAAAA 58

SEQ ID NO:3108

LENGTH:58

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03653

SEQUENCE DESCRIPTION:

GATCAGCCTT NNTATAATGT TTTTAAATC ATTTCTAAAT AAAACAGAAA TACAGAAA 58

SEQ ID NO:3109

LENGTH:55

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03654

SEQUENCE DESCRIPTION:

GATCTAGACT TATATGAATA AATNAAATTA CATGCCAAGG GCCCTAAAAA GCAAA 55

SEQ ID NO:3110

LENGTH:53

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03655

## SEQUENCE DESCRIPTION:

GATCAGGGCC GAGCAGAACC GCACTCTTCC CAAATAAAGC TTCCTCCTTG AAA

53

SEQ ID NO:3111

LENGTH:55

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03659

## SEQUENCE DESCRIPTION:

GATCATATTT TTTNATACAG GTATTTCAT TAAATGTTT TTGTACATAG TGAAA

55

SEQ ID NO:3112

LENGTH:76

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03661

## SEQUENCE DESCRIPTION:

GATCCAATCA NTTAAATAAA CCTGTATGTA TATGCATATG TNTACATGCA TATCCCCTCC

60

TGCTAAAACT CATAAA

76

SEQ ID NO:3113

LENGTH:451

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03679

## SEQUENCE DESCRIPTION:

GATCCCTCAG TTTCTTCTTG ATTCAGCAT GTNTCGGGTT CCTAATTAT GGTATGAGTT 60  
 AGCAAAATTA ACCATTGTGT TTGTGCCCTA CCCAGGGGAC TCCCCAGTTT CTGACTTGAA 120  
 GTAGACTGAG AAGAATCCAC GAGGTGCTAT CTGGCCAGAT TTAAGTAGAT TCTATTTCCT 180  
 TGGTCTCCC TCTCCCTGAG GACCTCTTAT TTNATTGTCC CCTCTTCTAG GTTAATTCTC 240  
 CTTTGATTG ACTTTGTTGA GAAGGAGGTT GGACAGTAGA TTAGCAAAGT TCCAAGTGCA 300  
 AAATTACAGT GTGTTAGAGT GTGGGGGGAA AATTAGTCTT ATTTTCCCT ACATGGGATA 360  
 CAACACTGTG AATTCAATCT TCAACCTGAA GGGCCCTGCA GTTCCTCCTA AAACATNGTT 420  
 GTTTGNTTTT CTTTAACCAA GGTTTAAGCT N 451

SEQ ID NO:3114

LENGTH:445

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03680

## SEQUENCE DESCRIPTION:

GATCTAAGGA TGACTTGGAC AACTCCNTG GCACTGAAGA GTCTGAACAN TGGCCTGTNA 60  
 TTGGTCCATT CCAGGACCTT CATTTGCATA AGGTATCAAA CCACANCAGC CTCTGATTGG 120  
 CCATGGGCAG ACCTGCACTN TGGCCAATNA TTGGTTCATT CCAGGACATT CATTTGCATA 180  
 AGGAGTCAAA CCACANCAGT CTTGGATTGG CTGTGAGCCA ATTCACCTCA GTCTCTAATT 240

GGC>NNNGAGT CAGTCTTTCA TTTACATAGG GTGTAACCAT CAAGAAACCT CTACAGGGTA 300  
 CTTAAGCCCC AGAAGATTTT NCTACCAGGG CTCTTGAGCN ACTTGCTCTA GCCCACTCCC 360  
 ACCCTGTGGA ATGTNCTTTC ANCTTTTGNT TGGTTTCAAG TNCCTTGGTG CTTCCAATAA 420  
 NTNCCACTTC CTTCAACCACC CNA AAA 445

SEQ ID NO:3115

LENGTH:439

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03681

SEQUENCE DESCRIPTION:

GATCGGCGCC ACTGCTGTCC TGCTGGCTTC NNCTGCGCAG CANGGGGTAC CAAGTGTTTN 60  
 CCCAGGGAGG CCCC GCGCTG GGACGCCCT TTAAGGGACC CAGCCTTGAN ACAGCTGCTG 120  
 TAAGGGACAG TACTGAAGAC TCTGCAGCCC TCGGNACCCC ACTCGGAGGG TGCCCTCTGC 180  
 TCAGGCCTCC CTAGCACCTC CCCCTAACCA AATTNTCCCT GGACCCCAT CTNAGCTCCC 240  
 CATCACCATG GGAGGTGGGG CCTCAATCTA AGGCCTTCCC TGTAAGAAGG GGGTTGTGGC 300  
 AAAAGCCACA TTACAAGCTG CCATCCCCTC CCCGTTTNG TGGACCTGT GGCCAGGTGC 360  
 TTTTCCCTAT CCACAGGGGT GTTTTGTGTG TGTGCGCGTG GTGCGGTTTN AATAAANGTT 420  
 TGTACAACTT NTGTTTAAA 439

SEQ ID NO:3116

LENGTH:431

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03682

SEQUENCE DESCRIPTION:

GATCTTGAAG TGCTTTTAT ACAGCTCTCT AATAATTACA AATATCCGAA AGTCATTTCT 60  
 TGGAACACAA GTGGAGTATG NNAAATTNNN TATGAATTTT TCAGATTATC TAAGCTTGCA 120  
 GGTTTTATAA TTAGAAGATA ATGTGAGANT TAATGGGGTT TATATTTACA TTATCTCTCA 180  
 ACTATGTAGC NCATATTACT CACCCTATGA GTGAATCTGG AATTGCTTTT CATGTGAAAT 240  
 CATTGTGGTC TATGAGTTA CAATACTGCA AACTGTGTTA TTTTATCTAA TCCATTGCTT 300  
 AATGAGTGTG TTTTCCATG ATTGAATATA CCGTGGTTCA TATGTTAGCA TGGCAGCATT 360  
 TTCAGNTAGC TTTTGGTTT GTTGGGAAGT TGGGGTTTGG GGGGGAGGGG GGAGTNTTNG 420  
 TACGTTGCCT N 431

SEQ ID NO:3117

LENGTH:427

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03683

SEQUENCE DESCRIPTION:

GATCAAAGTA TTATATGCTG TGTGCTTTTA AGGTGTTTGT AAGTACTGAA AAAGGCAAAA 60  
 ATNCTTTCTA CATTGACATT CATTCCCTATT TNACTGGGCA CCTATGAATG TATGCTGTGT 120  
 GCTAGAAATA GACTAAACA TATTCCTATA GCATGTNAGT GTGTTTGCAT GTTTGCTGAA 180  
 AATCCTTTGT GTATAANCCA GTTTGTAAGG TTCTCTGGGT TAGGTAGGGA CTCTGCAGTT 240

TCTNCCTGTC NAAATCTCTC CTACCAAGAT GGTGTTCCAC TGTCCAGCCC AGCATGAGTA 300  
 GCAGGTAGNG CACAGCTTTA CTGGCTGGTT TGTATGCTTT GGTTTTAGGT GCAATTGTTG 360  
 TGGGTNGATT TACTTTNTCC AGAAAACCAT NGTATTGNNN ATGTCCTNGG ACCGGTGGAA 420  
 AATAGGN 427

SEQ ID NO:3118

LENGTH:423

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03684

SEQUENCE DESCRIPTION:

GATCAAAAAT ATTAGAAAAA ATAAAANTAA TACAAATAAA AATACAGTAT AACAGTTATT 60  
 TAAATAGCAT TTACATTGCA TTAGGTATTA GTCTAGGGAT AAAGTATACA GGCGGATGTN 120  
 CGTTGGTTAT ATACAAATAT GTCATTTTAT GNAANNGACT TGAGTATACT TGGNTTTTNG 180  
 GTATCTNTGG GTTGGGGGGA CGGTCCAGGA ACCAATACCC CATGGATACC AAGGGACAAC 240  
 TGTACTTATT TNCCNTTATT GTCATTGCAA GCTTCTTATG GAACTTTTAT AGGGAATGAN 300  
 AATATACATG TTAAGGANGA TTAACATTA GATAGTAGAT GGTGTGTTGC ATGCTAGAAC 360  
 TGTTAGTATT GTTGATTCAA TTACTTTGGT TTCATGAAAA ANTAAACGGT AANTATCTTT 420  
 AAA 423

SEQ ID NO:3119

LENGTH:421

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03685

SEQUENCE DESCRIPTION:

GATCGAGACC ATCTGGCCA ACATGGTGAA AACTCATCTT TACTAAAATA CAAAAAATTA 60  
 GCCACGCNTG GTGGCGCAGG TTGTGGTCCC AGCTACTCGG GAGGCTGAGG CAGTGGAGTC 120  
 ACTTGAACCC GGGAGGCAGA GGTGTCAGTG AGCCGAGATT GCACCACTGT ACTCCAGCCT 180  
 GGCGACAGAG CAAGATTCTN TNTGCCCCC CACCAAAAAA AAAGANTGAA ACACTGATAT 240  
 TTGCTACAAC ATGNTATAC CTCAAAGCA TCCTGTTAAG TGAAAACAGG GAGACACAGT 300  
 CACGTACTAT ATGATTGCNC TTACGTGAAA TATCCACANN GACGNNTCCA TGGNGACCAG 360  
 GCAGATTGCC GNTTGCCAGA GGCCAAGGGT TAGGGAAAAA TTGGTGAGGG ACCCTGCGTG 420  
 N 421

SEQ ID NO:3120

LENGTH:410

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03686

SEQUENCE DESCRIPTION:

GATCTATGAC TTCTCAAAGC CGGGTCATGA ATGTCCATAA AATGCTAGGC ATTCCTATTT 60  
 CCAATATTTT NATGGTTGGA AATAATGCTT CANATTGGA ACTGGACCCC ATGAAGGATA 120  
 TTCTCATCCT CTCTGCACTG AGGCAGATGC TGCGGGCTGC AGATGATTTT TTAGAAGATT 180  
 TGCTCTNGA GGAACACTGGT GCAATTGAGA GAGCGTTACA GCCCTGCATT TGAGATAAGT 240

TGCCTTGATT CTGACATTG GNCCAGCCTG TACTGGTGTG CCGCAATGAG AGTCAATCTC 300  
 TATTGACAGC CTGNTTCAGA TTTNNCTTTN GTNCGTTTTN CNTTCTGTCC TTGGACCAGT 360  
 CATATCTCAN GTTCCAAAGG CCANAACCCT GAGGAGCGGT NNGGCTAAGN 410

SEQ ID NO:3121

LENGTH:402

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03688

SEQUENCE DESCRIPTION:

GATCTGAGGA CCCTGTA CTG GTTACTCCTG TACACGTTCA CAATTTTCNT GTAAATNTAT 60  
 TAATATACTG AGCAGTCCAG GAGCAGCCAT TAGGCAAACA CCACTCCTTG CTTCCCTTCAT 120  
 GTGACCTATC ACTGAGCTCA CCAGCTGAGG TCAATNACAT TCTTCCCAAC CTGGAGAACA 180  
 GAATTTGGGT CTGCTCAGAG GCATGATGTG AAACATGTCT GGGATAAAAG CTTTGTCTA 240  
 TTGACAGCAA ACCTTTTTGT GTTAAGGGGT AGGGGAAGAG CANGTGAAGG ATGCAGATTA 300  
 ATTTCTATTT AGGANTATAC TTTTNTATAT NGTTTGAAAT TTTGGNCTTG TAAAAATATT 360  
 CATCCATNTT TTNACCAANA NAATTCCTT GTGGACNGGT TN 402

SEQ ID NO:3122

LENGTH:409

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03689

SEQUENCE DESCRIPTION:

GATCAGTTTG ATTCTGTAAT GAGCACAGCA CCTAATATTT TGAGGAGCTC TGTTTTGAGG 60  
 ACCAATGCTT AAGGTGGACT TTGTTCTGTA ACAATATCCC AATAGATTG TTGACTTGAG 120  
 GTCTGGTTTG GTTTTGT TTTT TGT TTTT TGT TTTT TGT TTTTCCAAT AGAATTAAGA 180  
 ATTCTAATGT TGA AAAA CTG CACAAATTTT TATGGGACAA AGCCTAGAAA AGAGAAATGT 240  
 AGTTTGAATC ATAATCTAAA TCATCGTATG ATAGANGAGG GAAAGTTTGT GTGCCATAAT 300  
 TTCTCCTTTC ACTGGTGTG GGNCTTAAAT CAAGTTGAAA TGTATTTCTG TACCACAATT 360  
 TTANGGCTTT CAATAAAAAG TTTTAAATNG TCTAGGTGAC CATTCCAAA 409

SEQ ID NO:3123

LENGTH:400

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03690

SEQUENCE DESCRIPTION:

GATCAACATC CACAGCGAGA CCTCCGTGCC CGACCATGTC GTCTGGTCCC TGTTCAACAC 60  
 CCTCTTCTTG AACTGGTGCT GTCTGGGCTT CATAGCATTG GCCTACTCCG TGAAGTCTAG 120  
 GGACAGGAAG ATGGTTGGCG ACGTGACCGG GGCCCAGGCC TATGCCTCCA CCGCCAAGTG 180  
 CCTGAACATC TGGGCCCTGA TTCTGGGCAT CCTCATGACC ATTGGATTCA TCCTGTTACT 240  
 GGTATTGGC TCTGTGACAG TCTACCATAT TATGTTACAG ATAATACAGG AAAACGGGG 300  
 TTACTAGTAG CNGNCCATAG CCTGCAACCT TTTGNACTTC ACTTGTGCAA TGCTTGGCCC 360  
 TGNACGNTGG GGCTGTTGCC CTTGCCCCNT TTGGTCCTGN 400



SEQ ID NO:3124

LENGTH:400

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03691

SEQUENCE DESCRIPTION:

```
GATCCTTCCT ACTTTGCTTC TNTCCACCCA TGACCTTTTT NACTGTGGCC ATCAGGACTT 60
TCCCTGACAG CTGTGTAATC TTAGGCTAAG AGATGTGACT ACAGCCTGCC CCTGACTGTG 120
TTGTCCCAGG GCTGATGNTG TACAGGTACA GGCTGGAGAT TTNACATAG GTTAGATTCT 180
CATTCACGGG GNGGTTAGC TTTAAGCACC CTAGAGGACT AGGGTAATCT GACTTCTCAC 240
TTCCTAAGTT CCCTTCTATA TCCTCAAGGT AGAAATGTCT ATGTTTTCTA CTCCAATTCA 300
TAAATCTATT CATAAGTCTT TTGGTACAAG TTTACCATGN TAAAAAGGAA ATGTGATTTT 360
GGTCTTCCCC NTCTTTTGCA CTTTTTGAA ATANAGGGTN 400
```

SEQ ID NO:3125

LENGTH:397

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03693

SEQUENCE DESCRIPTION:

```
GATCCTNAAT TTNAATAAT NACACCATCA TAAATNAACA AAGGTAGGAA GGAGTTTGGC 60
TTCAATAGCT TACAGTAAAA GGAGTAAAGG AGTTCAGCCT CAAAACGATA TTGTTGACCT 120
GTNATGTTAT GAAAAATAAT CCAGTGTTTA TACTTAACGG ATGCCATCCC TTATNATTTA 180
CTATTTTCTT AGTCTAATAA AACAATCTTT ATTAATAATA GCAATGATAT TTGACATGGG 240
CCTAAGAAAT ATATAGTTAG CTAACAATAT TGTCAGTTAG AGGGATTCTT TTTCTAAATT 300
AAGTACAGAT TTCTTACCA AACTCCAGGN TAACAGAAAN GGGGCCATAA AATTGGNCC 360
ATAGTTTCTG GGTAAATAA NTGGTAATTT TAAANTN 397
```

SEQ ID NO:3126

LENGTH:392

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03694

SEQUENCE DESCRIPTION:

```
GATCAAGTAA CATGTTGCAT GTGGCTTACT CTGGATATAT CTAAGCCCNT CTGCACATCT 60
AAACTTAGAT GGAGTTGGTC AAATNAGGGA ACATCTGGNT TATGCCTTTT TNAAAGTAGT 120
TTTNTTTAGG AACTGTCAGC ATGTNGTNGT TGAAGTGTGG AGTTGTAAC NTGCGTGGAC 180
TATGGACAGT CAACAATATG TACTTAAAAG TTGCACTATT GCAAAACGGG TGTATTATCC 240
AGGTACTCGT ACACTATTTT TTNGTACTGC TGGTCCTGTA CCAGAAACAT TTNCTTTNAT 300
NGTNACTNGC TTTTNAAACT TTGTTTAGCC ACTTAAAATC TGCTTATGGC ACAATTNGCC 360
TCAAANTCCC ATTCCCANGT NGGTAATATT GN 392
```

SEQ ID NO:3127

LENGTH:391

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03695

SEQUENCE DESCRIPTION:

```
GATCTAAGGA TGA CT TGGAC A CACTCCCTG GCA CTGAAGA GTCTGAACAC TGGCCTGTNA 60
TTGGTCCATT CCAGGACCTT CATTG CATA AGGTATCAA CCACATCAGC CTCTGATTGG 120
CCATGGGCCA GACCTGCACT CTGGCCAATN ATTGGTTCAT TCCAGGACAT TCATTTGCAT 180
AAGNGTCAA ACCACAGCAG TCTTGGATTG GCTGTGAGCC AATTCACCTC AGTNTCTAAT 240
TGGCTGTGAG TCAGTCTTTC ATTTACATAG GGTGTAACCA TCAGGAANCC TCTACAGGGT 300
ACTTAAGCCC CAGGATGATT TTGGCTTACC CGGGNGTTTC TTGNGGCCNC TTTGGTNTTG 360
GCCNAGTTNC NCACCTTTGT GGAATTGGT N 391
```

SEQ ID NO:3128

LENGTH:389

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03696

SEQUENCE DESCRIPTION:

```
GATCTCGGCT CACTGCAACC TCCACCTCCC GGGTTCAAGC GATTCTCCTN CCTCAGCCTC 60
CTGAGTATCT GGGATTACAG GCGTGACCA CCATGCCTGG CTAAGTTTGG TGTTTTTTTT 120
AGTAGAGATG GGTTCACCT ATATTGGTCA GGCTGGTCTC GAACTCCTGA CCTTGTGATA 180
CACCTGGCCT CAGCCTCCCA AAGGGNNGGT GCCACCGCGC CTGGCCCAT TTTCTTTTT 240
TTGACCCATA CTTAATGTTG CAGAAACTAT TCTGTGCATA ACATTATCTC TCATGTACAG 300
TAATTATATG TAAATTAATT GAAGCAAATN TGGGAACTT TACAATAGAA ATAAAGNTAG 360
GCAGCCAGCG TNTGTTTCCA NTTNTNAAA 389
```

SEQ ID NO:3129

LENGTH:380

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03697

SEQUENCE DESCRIPTION:

```
GATCTCGGCT CACTGCAACC TCCACCTCCC GGGTTCAAGC ATTTCTCCTG TCTCGGCCTC 60
CCGAGTAGCT GGGATTACAG GCGTGAGCAC CATGCCAGC CAGAAGTACT ATNATTTCTT 120
ATAACTACAT ATGAATCTAA AATTATCACA AAAGGAACT TCTTTAAGA AAAAGAAAAG 180
AATCAGAA CA TAAATATACA GCATGGCAAA ACTACATCTA AAACAAGTAT TATAGGTCTC 240
ATGGTGAAA ANTTGGACCC ACAAGAAAAG TTGTTAATTA TCTCTGATAT TCTGAACCAT 300
TGNTATCTGC AAAATGATTA CTAGGTATGT GCAATGANGG CTATTGATGT TACCCTGTAT 360
ATCTGCACAC TGTGTTCCAN 380
```

SEQ ID NO:3130

LENGTH:352

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03698

## SEQUENCE DESCRIPTION:

GATCTGCTAG TGCTGTAATA TTGTAAATAC TGGACTCAGG AACTTTTGT AGGAAAAAAT 60  
 TGAAAGAACT TAAGTCTCGA ATGTAATTGG AATCTTCACC TCAGAGTGGA GTNNNNNCTG 120  
 CTATAGCCTA AGCGGCTGTT TACTGCTTTT CATTAGCAGT TGCTCACATG TCTTTGGGTG 180  
 GGGGNGNGAN GANGAATTGG CCATCTTAAA AAGCGGGTAA AAAACCTGGG TTAGGGTGTG 240  
 TGTTACCTT CAAAATGTTT TATTTAACAA CTGGGTCATG TGCATCTGGT GTAGGAAGTT 300  
 TTTTCTACCA TAAGTGACAC CAATAAATGT TTGTTATTTA CACTAGTCTA AA 352

SEQ ID NO:3131

LENGTH:375

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03699

## SEQUENCE DESCRIPTION:

GATCGTGGGT TGCCGAGAGG ACCTGAGCGC TCGGGCTCTG CTGAATGGAN CCGGGTCCCT 60  
 CAGGCCGTGG ACGCCCTCGG AAGGGGGGTG ACTGTGGCTT GTNTCTGGAC AGGAATGTGT 120  
 CATTCCCAC ATCTTCTAGA GGGCTGCCAG CTGGGAAGAC AGTTATNAGG GCAAGCTGTG 180  
 CTCTGAGTTT CGGTTTCTGC TCCTACAAAG AACGTGCGGT GCTGCGGGCN AGGGCCCCGG 240  
 CACGGACAAG GGCCACTGCA GAGTGTGTTT CTNCTCGTNA GCTGCCCTGG GCANGGAATG 300  
 GGCTGGNTNA TGCAGTTGGA TGCACATCTN ATTCTGTCAT GAATGTCCAG TAAAAAATCT 360  
 GAAATTGGTT GCAAA 375

SEQ ID NO:3132

LENGTH:369

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03701

## SEQUENCE DESCRIPTION:

GATCCAACCC AAGGGCAAGG GCATCCTGGG AAATACCATC AAGTGGAAGT TCACCAAGTN 60  
 CCTCATNGAC AAGAACGGCT GCGTGGTGAA GCGCTACGGA CCCATGGAGG AGCCCTGGT 120  
 GATAGAGAAG NACCTGCCCC ACTATTCTA GCTCCACAAG TGTGTGNCC CGCCGAGCC 180  
 CCTGCCCACG CCCTGGAGC CTTCCACCGG CACTCATNAC GGCCTGCCTG CAAACCTGCT 240  
 GGTGGGGCAG ACCCGAAAAT CCAGCGTGCA CCCC GCCGGA GGAAGGTCCC ATGGCCTGCT 300  
 GGGNTTGGCT CGGCGCNCCC ACCCTGGCT ACCTTGTGGG AATAAACAGA CAAATTAGCC 360  
 TGCTGGA 369

SEQ ID NO:3133

LENGTH:367

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03702

## SEQUENCE DESCRIPTION:

GATCTTGGGA AAATTGCGGA GTGTACATTT ACAAAGATGC GTTCAAATAG TGCTCTAAGA 60  
 GTTTTGTTC GTGGCTCACT TCGGCTAAAA TGCAGAAATG NATGCTGTCA GCGTTGGTAT 120  
 TTCACATTCA ATGGAGCTGA ATGTTACAGGA CCTCTTCCCA TTGAAGCTAT AATTTATTG 180

GACCAAGGAA GCCCTGAAAT GAATTCAACA ATTAATATTC ATCGCACTTC TTCTGTGGAA 240  
 GGACTTTGTG AAGGAATTGG TGCTGGATTA GTGGATGTTG CTATCTGGGT TGGTACTTGT 300  
 TCAGATTACC CAAAAGGAGA TGCTTCTACT GGATGGAATT CAGTTTCTCG CATCATTATT 360  
 TGAAGAN 367

SEQ ID NO:3134

LENGTH:366

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03703

SEQUENCE DESCRIPTION:

GATCAAGAAA TGCATTGACA TTCTAATTGA GAAAGAATAT TTGGAGCGAG TGGATGGTGA 60  
 AAAGGACACC TACAGTTACT TGGCTTAACC CTTCTGGAAG GGTCTGACTG TGTGACCCGC 120  
 AGCAAATAGT TCATGTTGGA AAGAATGAAA ACAACTCAAG TTCATAGCAG CCAGCCTGCC 180  
 GCCATTGGAC CTCCTTTTA AAAACTGAGA CCAAGACTCC CATCAGCTGG TCTCGGGTTT 240  
 ACATCGGAAC TGCTCAGGAT TGATACATTT NAAGTCTGTA AATACGGACA CCAACGCCAT 300  
 TTACCCTAAT TTNANGAACA GCGGGGNCTG TCCNTCCGGT GCCGAGGGGC TTGCATTGCT 360  
 TACCGN 366

SEQ ID NO:3135

LENGTH:364

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03704

SEQUENCE DESCRIPTION:

GATCCCTGAT TAAGCTGATG ACTAGACCTA CAATTAATTT TCCTGCAGTA TATGAAGTAT 60  
 TGTAACAGAG TATTAAAAGA TATGTAATAT TTNATTGATA AATCTATCCT TTTAAAAGGAA 120  
 TACGTTTTAG GATGTCATCA TTTTGATGTG AATCATGTAA ATGTTGATAA TATGCTGTTT 180  
 ATTATACATT TAGTGTTTCA AGAGATTCAC TTAATTGCCT TTTTGCCAC GTATATTATG 240  
 TAGTCTATTT GCAACTGTTT TTAATAAANT GNCATTAAAG GACTAGTTTA TGTNGGGAAC 300  
 CATTAGTGGN TGTTATTNGN CTCCCCCCT NTNTTTTGG GGTGTTAGCG CACCTGCTTT 360  
 GCTN 364

SEQ ID NO:3136

LENGTH:363

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03705

SEQUENCE DESCRIPTION:

GATCCTGACC AGCAAGCCCC CCCCCAGCCC CCCTTCCAAG TGA CTCCGTG NCTTGAGTGT 60  
 GTCTGCGTGT TTACACCCGT CCCTCTGCTG GCCGCCCCCG TCGAGCGGC ACCCCTGCC 120  
 TGCCCTCCAC AGAATTGGGT TCCAAGGGCT GTTCCAGACA ACTGCCAACG TCACTGAGGG 180  
 CCCTGCCCA GCGGNCCTGG CCCCAGGCTC TATTAACCTA AAATGTAGCT CCCTAGCGNT 240  
 AACCTAGGAA CCGGCGTTGN CTGCTTGGGG GGTACGCCC TCATGNCCT GTTCCCAGGG 300  
 CCGGGGGCCT TNAAGCGGTI NGAACAATTC NTTGGCTTTT TTTANANTG TTTAATNGGA 360

ATN

363

SEQ ID NO:3137

LENGTH:359

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03707

SEQUENCE DESCRIPTION:

GATCTGGTGG TCAGCCCTAG GATAAAAAGC CAGGGCTGGA GAACAAGAAA GGGCCAGGAG 60  
ATGGAATTCC TTCAGGCCGG CACCCACACC CTAGGACATG TAAGCCCTCA TGTCCAAGGG 120  
AGCCTCATGC AGATAGTAGG AAATCAGGTC TGGAAATTTA AAANTAAAAG GCATGAGACT 180  
AAGGCTATCT GCTTCNTTA TGCCCTGACT GGAGAGGGGA GGGTGGAGAG GCANGGCCCA 240  
CAGTGGGCAT CCCNGCTNGG TCTTNGGATG NCTGCNGTGN GGTGAATTCC CGGGAAGTNG 300  
TTTTGGCACA ANGNTNNTT TTGGCACTTT GTTTTTTTGT GTATTAAAG GTTTGTCTN 359

SEQ ID NO:3138

LENGTH:358

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03708

SEQUENCE DESCRIPTION:

GATCAGGGGA TAGTGAAGTT TACCAACTGG GTGATGTCAG TCAAAAGACA ACATGGCACA 60  
GAATATCAGT ATTCGGGCCA GGCCTCAGAG ACGTGGCATA TCAATATGTG AAAAAGGGGT 120  
CTCGAATTTA TTTGGAAGGG AAAATAGACT ATGGTGAATA CATGGATAAA AATAATGTGA 180  
GGCGACAAGC AACAACAATC ATAGCTGATA ATATTATATT TCTGAGTGAC CAGACGNAAG 240  
AGAAGGAGTA GAAAGGATGA TTCTTCTTTG GCCATCATTT GGTACAGTCT CATTTCCAAG 300  
TCATGTATAA TCTTTATGGC TTCCAGGGAC ANGGNTTTAA AATACTCTTT TACGTAAA 358

SEQ ID NO:3139

LENGTH:356

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03709

SEQUENCE DESCRIPTION:

GATCTCAGTC TCTCTGTCTC TCTTCTCTC CTTTCTCTT TGGTGTATCA AATATTNAT 60  
TGACAAAAGTA AGGGCCTTGA TTAGGACCAA ATTCTCGTGT GTTGCTATGG TCTTTATTTA 120  
GGACAACAAT TAACAATGCA GTGGCCCATC CTTGTCACTC TACACATATG ACTATACGGG 180  
ACATATGTAA TATATAAATA TATATATAAA NCATTCCCCT CTGTCCCCTT GGCTTCGGAT 240  
GGAGGCCTTT CTGTTGAGCT GAAATGCACC TGCAGCTGGG TGCTGCCAGC AGCTTGCAGG 300  
CCCCAGCCCT GTTCCANTCA ATGCAGTTGN CAATAANTGG NATGAGTATC GTCAAA 356

SEQ ID NO:3140

LENGTH:354

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03710

## SEQUENCE DESCRIPTION:

GATCTTCAGC ATGTGCGGCC TCATGCTTAA GCTGAAGTGG TGTGCTTGGG TCGCTGTCTA 60  
 CTGCTCCTTC ATCAGCTTTG CCAACTCTCG GAGCTCGGAG GACACGAAGC AAATAATGAG 120  
 TAGCTTCATG CTGTCCATCT CTGCCGTGGT GATGTCCTAT CTGCAGAATC CTCAGCCCAT 180  
 GACGCCCCCA TGGTGATACC AGCCTAGAAG GGTACATTT TGGACCCTGT CTATCCACTA 240  
 GGCCTGGGCT TTGGCTGCTA AACCTGCTGC CTTCAGCTGC CATCCTGGAC TTCCCTGAAT 300  
 NAGGCCGTCT CGGTGCCCCC AGCTGGGATA GAGGGAACCT GGGCCCTTTT NCTN 354

SEQ ID NO:3141

LENGTH:352

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03711

## SEQUENCE DESCRIPTION:

GATCTTGATG AGGGCCAACT TTCCCTCTTC CACAAGGGAT TAATCTTAGA ACTATAGCCA 60  
 ATTTATTATA AGTACTATTT AGCTACTCTG TGCTCCACAC ATCACGGAGT AATATCTTCA 120  
 AACTATGAGG TTTAGTAACA CTTGACTGCT GAGGTTTATT TCCTCAGCTC TGATGCTTCC 180  
 TGGGTGAAGA TGTAAGTNAT TAAATTAAC CAAATTTTAA AGCTAACACT TCATTCCATC 240  
 TAGACCAGGT AGCTCGTCAT TTGTACGTCT GATAGGTGCT TCAACATCTC AGAATTGGCT 300  
 TTATTTTCA TGCATTGCAT ATTGTACTCN TTTGTAATAT TGGGNATGTA AN 352

SEQ ID NO:3142

LENGTH:349

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03712

## SEQUENCE DESCRIPTION:

GATCTGACCA CTGTTCTCCA GCAGGCCTCT GCTGCAGCTT TTNCTCTCAG TGTTCCTGGCC 60  
 CTCTCCTCTC TTGAAAGTTC TCTGCTTACT TTGGTTTTC CTCTGCTTGT AAAACATTGA 120  
 GTCCCTCCC TGCCTTGGTT AATTGACTCA CACCAGCTGT GCGATGCCCG CTTTACAAT 180  
 TAAAGGAAAA CTGTTTTGTT CAGTGTCAAC TTGTCAGCAA CACTGTGTCC CTTCGCCCA 240  
 CCGTTCTTCT CTGCTGCATT TGGACATGAG CCAAATTTGA ACCCAATCAA ATATAACGTG 300  
 TCTGACACTG ATTTTGTNTT TACTCAANTA AANGTATAGA CTACAGAAA 349

SEQ ID NO:3143

LENGTH:348

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03713

## SEQUENCE DESCRIPTION:

GATCTGTTCC AGCTGCAGGT GAACACCCTA CGACGTTATA AACGACACTA ACAAGTTGCA 60  
 GACCAGACCA GGCTTCAATA AGGCCAGTT AGCAGAACT GTGAGTCGAC ACTTCAGGAA 120  
 CATACCTGTG AATGAAAAAG AGACCTTGC TACTTTCATC TACATGGTGA AGAGTAACAA 180  
 GAGTAGACTG GACCAGAAAT CGGAGGNGG CAAGCAGCTT NAGTGAGGAT GAAGCACATC 240

TAAAGGAAT GAAGTGATA TGCTTGATGC ACAGGTNGAT ATCTACTACA TTTAAGCCCA 300  
TAAAGACTGT TAAATATTA TTGTAAATA AAAAGTTTGT ATGATTGN 348

SEQ ID NO:3144

LENGTH:348

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03714

SEQUENCE DESCRIPTION:

GATCCAGATG CAGAGGCCAG GATGTGGGCC CAGCCCTGTG CCAGGAGGCT NGCTGGAATA 60  
AAGGGATGGG CAGGCTGGCA TGGGGGCAGC CGCTGCCCCCT GCCTNNNTGT TGCTGTGTAT 120  
TCCTGCCGGC CAGGGGCCAC TGCCAGGACC ACGCCTCCCT TTNATATCC CGATTCTTAA 180  
GTTCTGCTAT TGTGTATTG TGGTGGAGAA AAAAGAACCG CGTGGCTGTT TTNAACTGC 240  
CTGGAACCTA AGACCCTGAA TTCTTTTCCC CCCCAGGGG AAAATCTATA TGGAAANCAT 300  
TTATTTTAAA ATACAGGATG AAGTGAATTA AAAGATTTTA AATGCAAA 348

SEQ ID NO:3145

LENGTH:379

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03715

SEQUENCE DESCRIPTION:

GATCACACCT GAGCTTATGC TAAAGGTGG GATGACTCAG AGCTGGGGCT GGTACCAGA 60  
CAGACTGACC ATGTGATTAG AGGTTTGAGG CTTTGAGTCA GCCTGACCTA TGGGGCGGGG 120  
GACTGGAGGC TGAGTTTAAAT CATCTGGCCA GTGCTTTAAT CAGTACATCA TGAAACCCTA 180  
ATAAAACTC TGGACACTAA AGCTCAGCAT AGCTTCCTGG GTGGTGAAGC TGTGGCTATG 240  
CCGGCAGGGC AGTGTGCCCT AATTCCACGA AGAGGGGGCA TGGGAGCACT GTGCTCAAGA 300  
CCCTTCCAGA CCTTCCCTG TGTCTTCCTT GGCTTGTGGA GCTGATTGT ATCCTTTATA 360  
ATAAACCTAA TCATAAGGN 379

SEQ ID NO:3146

LENGTH:371

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03716

SEQUENCE DESCRIPTION:

GATCTGACCT GTGACAAGTC TGTACTATCC ACTATGTAAA TGGCTCACAA GTCAATTGCA 60  
AACAACTGA ATGTACAAAT CTTAGTGCTG GTGCTGAAAT CTCTCAGAA TAGTNATCAT 120  
GATTTAAAAG TTTGTTTTAA AATTGCAAG CATCAAGTGT CAATCAAAAC TGAAGATGAA 180  
ACACTAATGA ATGTTGAATT CTCATGCTTT TAGGTGTAAT TCCTTTTATG AATTTTCAGT 240  
TTTCTGCTAT TTTTACCGTA ACTATTTCTG TTAANTTGG TTTTATTAN GTTTCCTACA 300  
TGCTAACTTC GTTTGTGCGN TTGANTAAAN TTGCCGGTAT ATATNTGGTG GCCTTGTTTG 360  
TGACACTTTG N 371

SEQ ID NO:3147

LENGTH:346

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03717

SEQUENCE DESCRIPTION:

```
GATCACAGGC AAACCATCA AGCTGACTCA GGTGGAACAC GAAGCTGGCA NNTAAGTGGA 60
ACATGGATGG GCGGGAACC ACCCCAGCC CAGGGCTGCA GCCTNNCCCA CCTNACCTTC 120
CCGCTGGACT ATNACCTTAA CCAGCCTTN ATCTTCGTAC TGAGGGACAC AGACACAGGG 180
GCCCTTCTTT TCATTGGCAA GATTCTGGAC CCCAGGGGCC CCTAATATCC CAGTTTAATA 240
TTCCAATACC CTAGAAGAAA ACCCGAGGGA CAGCAGATTC CACAGGACAC GAAGGCTTGC 300
CCCTGTAAGG TTTCAATGCA TACANTAAAA GAGCTTTATC CCTAAA 346
```

SEQ ID NO:3148

LENGTH:344

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03718

SEQUENCE DESCRIPTION:

```
GATCTNCTGC CGAGTGAATG GGGAAAGTNT CCAGAGCGGC AACACCAAAT AGATGGTATT 60
CAAGACAGAG GACCTGATAG CCTGGGTCTC CCAGTTNTN ACCTTNACC CAGGGGATGT 120
NATCCTAACT GGGACCCCC CAGGTGTCGG TGTATTCAGG AAACCTCCTG TTTTNTCAA 180
GAAGGGGGAT GAAGTCCAGT GTGAGATTGA NGAAGTAGGT GTNATCATCA ACAAGGTGGT 240
GTGATGGCTC CTGCACAGGC CCTGCACATA GGTGAGGGC ATCTGCTCCC ACTNAGCCTA 300
GCCCAGGGAA AGGCCANTG ACAGGNTGTG GACAGGTTGC CAGN 344
```

SEQ ID NO:3149

LENGTH:341

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03719

SEQUENCE DESCRIPTION:

```
GATCTTTGAA GTCTATTTAA ATATTCATTC CATTACATCT AGACTCACCN AGAACTACAT 60
GTTATGATGT TAAGTTGAAG TTGAAACATG ATGTTTGGCA TTAAATTTAA GATATGCAAA 120
TTTATGTAGA GAAAATAAAT GTTATATACC CTATAATCTT TCACCTAATT AGTATTTAAT 180
TATATGGATT TGNNTTATAT TATAAAAGAT GTTTTGATTT TGTCTNNGA TATTGNCAAA 240
ATTGTTTGGA TATNCTTATG TTCTCAAGTC TGTATCTGCC TCCCCTGCCT TATNTCTNAT 300
GTTTGGCCAC AGTTAACCCA TTGTGCTTCT TTGTAATCAA N 341
```

SEQ ID NO:3150

LENGTH:339

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03720

SEQUENCE DESCRIPTION:

```
GATCTNATCA GTCCTAAGCG GGTGATGGGG CAACACGGTT AGCGGGGAGA GCACGGGGTA 60
```



GCCGGAGAAG GGCCTCTGGA GCAGGTCTGG AGGGGCCATG GGGCAGTCCT GGGTGTGGGG 120  
 ACACAGTCGG GTTGACCCAG GGCTGTCTCC CTCCANAGCC TCCCTCCGGA CAATAAGTCC 180  
 CCCCTCTTGT NTCCCACCCT NAGATTGGGC ATGGGGTGCG GTGTGGGGGG CATGTNCTGC 240  
 CTGTTGTNAT GGGTTTTTTT TCGGGGGGGG NTTGCTTTTT TNTGGGTCT TTGAGCTCCA 300  
 AAAAATAAAC ACTTCCTTN AGGGAGAGCA CACCTTAAA 339

SEQ ID NO:3151

LENGTH:337

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03721

SEQUENCE DESCRIPTION:

GATCCTCTCC CTGGGATAAG CACTCCCAGC CCCGTTTATC AGAAACACAG GCAAGGAAAT 60  
 TGGAAGTCC ACCCAGCCCA GCATGATGGC TCAATTGGTT GGTTCGTTG TNAGTTGTCT 120  
 CTTNGTTTTG TTAAGNNTT TAATAAAGTA CGTTTTGCAT AATTGCCTTT AAATGGTTTG 180  
 TAATATTTGT AACGGTTTGA GCAGCCTATA ACTTTTCAGC TGGTGCTTTT ACTAGGGNA 240  
 AAAACAATT TGTAATACA GNACATTGT TAAAAGGCAT AACCNTAGAA CATAGCTTCC 300  
 TGTTTGTGG ATTTGGTTTC CTNTATATTC AAAGTAN 337

SEQ ID NO:3152

LENGTH:336

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03722

SEQUENCE DESCRIPTION:

GATCAGAGGC AGACAATGAC GAGTGAAGAT GGTTGTAAAG CCCTCTTCAT TCCTGGAGGA 60  
 GCCTGCATCT AATCTNTNAG GCCCTCTTTC TCTGTGGGTC TCATGAACAG CAGTGGGGAC 120  
 CATTGAGNAC TTGAATGGCC TGTTGTNTA TGGGCTTGCA AAGGACAAGC AGAGTTCACA 180  
 GAGCTCAGGA TAGAAACATC AGAGCCTCCT CCACGGGCTT CAGTGNAACT CCGATGAACT 240  
 GTACCTGAGG GAATTTTTTT NTAATCAAC CCCTTGTTG GATGAATACA GGACCACAAA 300  
 ANTTNGTNTA CGTTTGAAAA AAAANAANNT NTNNTN 336

SEQ ID NO:3153

LENGTH:334

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03723

SEQUENCE DESCRIPTION:

GATCTGCATT CCGACTGCCT ATNAACGGGT GTGGGGGCCG GGGGCTGGAN TTGCTGAAGT 60  
 NTTCACTTG CACTCGGAGC TCCTTNATA CCTCAAAGCT GGCTGTNAGG TGGCAGCTCA 120  
 CACCCAGACT CACTGGCCAC ACCTCAGCAG GGGGGGAGTC GAGTGTCACT NTCTTCTGT 180  
 GAAGGCTTTT TTTTCCCTTT GGCTGGGAA TTTTCCCAT TTTAATGAAG GGGTTTTAAA 240  
 TTGTTTCATT TTGTGTGCTG TGCTTCAAAG CCTTAAGTGT CAAATCTTGC ATTATCTNGT 300  
 TTGTACAGAA ATATACTGGC CTAGCAGNGG CAAA 334

SEQ ID NO:3154

LENGTH:330

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03724

SEQUENCE DESCRIPTION:

GATCAAAATT TGTGTACTTG CAGGGCTTTC TTTCTTTTNN TTCAAATTTA CAAGGGTTCA 60  
TTTTGGAAAC TACATTTTAA ACTTTGGAAT CAAATTGTTT CTTATTGGG AGGATAATGT 120  
ATATACATTG GTATTATGTT AAATAATAAA ATTGTNCTAA TTTGGTGCCA TTTCTGAAT 180  
CACAACGTGA TTTTGNATC TCANGCTATT TTCATATGTN ATGTGTCAAT GTATCATCTC 240  
TCAGAAAGGT TTTACANTCC AAACATTATA TGTNCTCTGT GAACTGAAT TTNACTTATC 300  
TNTNTAAAC CAGNAACATT AATTGAGAAA 330

SEQ ID NO:3155

LENGTH:330

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03725

SEQUENCE DESCRIPTION:

GATCTTCGCA AGCCAGCTTC TTCTGCATCT NAGGGGCTGC TGGCGCCCAN AGGAGGCAGA 60  
CAGATGTCTN NTAGCTGAGT TTCTAACCGC ATGATGAGAC TCAGACCTTC CGCTGCACTA 120  
GAAAATCTGC AACAGTGTCC CTGAGTCACT TCTCCTTAGT GGGCAGACTC GTGTTAGATT 180  
TGTGGAACCC AGCTCTCTGA TTTACTCCTT TTGGAAAACC CATGGAATTT CATGTATAAG 240  
GCTTTCATTT GTATTTNAAG GTTTTCTGT TTGTTTTGAG TATATACATG GTGCTCAATA 300  
GCAACATCTT AGCAGATGAA GCAGTTTATN 330

SEQ ID NO:3156

LENGTH:329

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03726

SEQUENCE DESCRIPTION:

GATCTACTGC AAATCCTGCT ACGGAAAGAA GTATGGGCCA AAAGGCTACG GTTATNGCCA 60  
GGGCGCTGNC ACGCTTAACA TGGACCGTGG CGAGAGGCTG GGCATCAAAC CAGAGAGTGT 120  
TCAGCCTNNA CAGGCCTACA ACAAATCCAA ACACCTCTAA ATTTNCTCAG AAATATGGAG 180  
GTGCNNGNAA GTGTTCCAGG NGTGGGGATT CTGTATATNC TGCCGAGANG ATAATTGGAG 240  
CTGGAAAGCC CTGGCACAAA ANCTGTTTCC GATGTGCAAA GTGTGGGAAG AGTCTTGANT 300  
CAACANCTCT GACTGNAAAN AGAAGGTGN 329

SEQ ID NO:3157

LENGTH:329

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03727

SEQUENCE DESCRIPTION:

GATCGGGCGC ACGGNCCGCT TTGGCAAGAG GGGCCTGGCA GTGAACATNN TGGACAGCAA 60  
 GCACAGCATG ANCATCCTGA ACAGAATCCA GGAGCATT TT AATAAGAAGA TAGAAAGATT 120  
 GGACACAGAT GATTGGACG AGATTGAGAA ANTAGCCAAC TGAGAAGCTC CACCAGCCAC 180  
 TGATGCCAGC CCTGGCACTG CCCCTGCACA GGAGACAAGT GCGTTCAGGG CACAGGCCCC 240  
 GACATCACCC CAAGGNCAAC GGCACAAGTA GAGAGANACT ACCTACCTCA NTTCANATTA 300  
 TGTTTGGCCT TGACAAAATT GTATGCAAN 329

SEQ ID NO:3158

LENGTH:327

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03728

SEQUENCE DESCRIPTION:

GATCAAATTT ACTNGAACAA TTGTTAATTT ATCCATTGTG CTTAGCTTTG TGACACAGCC 60  
 AAAAGTTACC TATTTAATCT TTTCAATAAA AATTGTTNTT TGAAATCCAG AAATNATTTA 120  
 AAAAGAGGTC AGGTTTTTAA CTATTTATTG AAGTATGTGG ATGTACAGTA TTTCAATAGA 180  
 TATGAATATG AATAAATGGT ATGCCTTAAG ATTCTTTGAA TATGTATTTA CTTTAAAGAC 240  
 TGGAAAAAGC TCTTCCTGTC TTTTAGTAAA NCATCCATAT TTCATAACCT TATGTAAAAT 300  
 ATGTNGTNCC TGTTTCCAAT AGGTGAN 327

SEQ ID NO:3159

LENGTH:324

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03729

SEQUENCE DESCRIPTION:

GATCTGAATT TGGACCATT CACTAAAGAG AACATGAGTT TGCTCAGCCC TTTCTCACA 60  
 AGAGGGAGGG CCCCGTTCC CCAGACTTCT CCACGCGCTG GCTCCATAAA GGCCAGCTTT 120  
 GGCCAGGCTG CCACAGGGGC CTNAGGAGCT CACTCTGGGC CTACCTGGTT TCAGTTAGAG 180  
 GGTCTCTCTG TTATTTTCC ATTTAAAAAG TATGTCCTCA GAAACTGTA NTGGAAGGAT 240  
 GGGTGGCAGG AACTTGTATA GTTCAGCTTC CAACACTTTG GAACAGATTA AAAAGGGAAT 300  
 CTTTTAAATA AAAACGTATA NAAA 324

SEQ ID NO:3160

LENGTH:322

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03730

SEQUENCE DESCRIPTION:

GATCTTGGTT TTAATTAAC TATTACTCTA TTAATATAAC CTTGGAATTC TATTCTAATN 60  
 ATGTTGTTCT GGCTGCTTGT AGTATCAGTT CGCCCCTCTT GTTAGGGAGA TATGTAACAA 120  
 TCTGTCATTT AATTGAGCAG TCTTTTTCAC ATAACAGTAA TAGCAAAAAT CCTACCTACT 180  
 CAGAATCATC TNCTTAGGTT GTCTCCTAAA TCTGAACAAT ACAGTTGTTT TATAAANTNN 240  
 CATTTNGTCT CTTGAGATTN AATCAATTAG AACTCTTTAG GGAGAAAATA AATANTAGAN 300  
 GAAANTATAT GCCTCANATT GN 322

SEQ ID NO:3161

LENGTH:320

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03731

SEQUENCE DESCRIPTION:

GATCTGACTT TTTTCCTTCT CAAAAGAATC ATACTTGGGA TTACAGGTAC ATTTNATGTT 60  
ATATNATGGA TAAGTGAAAA NTTTTTAAAG GAGATTTTAT ACCTTTTCAC ATTAAAAAAG 120  
GTATTTATAT TATNACTTGT TAGTGATTGT CTTAAGAAAA AATATAGCCC AAATGTATAG 180  
TAAAATCAGC AGCTCAAGAA GAATTTCTGC TTCTNTTGT AGTTGATGCT TTGTTTTTNC 240  
CTGCAGTCAG AAATTCCTTG TATTTGTCAA ATGTATAATC AGCTTGATT GTTTTTAAAT 300  
TAAAANAAAA TTGANTAAA 320

SEQ ID NO:3162

LENGTH:320

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03732

SEQUENCE DESCRIPTION:

GATCTGAAAA NAAACCTTAA TACGCTCATA TGGTTGGAGT GTTAAGTGAA CCTNTGATTT 60  
TTNAGGGTT TTTNTACGTG TAGGCGTGAA TAGGGGGCAC CCCTTCAAAA CTGTACAAAG 120  
AAGACGACTG TTTTCCATTT CCATTTAAAC ATTTTATAGCC ACTTCATTC TATTATTGA 180  
ACAGGTCAAA TTTGTNTTGT TATTTGTGAG TACAGTACAT TTAACAAAACA TCCTTATCGG 240  
TTATTTTTTT TTCAGTCGGA GTTTGACGTA TAAATNGTTT ATGCTTTTGG TGAATCTCT 300  
TAATAAACTG GTTCTTCAAA 320

SEQ ID NO:3163

LENGTH:180

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03733

SEQUENCE DESCRIPTION:

GATCAGCTAG CTGATTCTT GTGTACTTTT TTNAACTGT GGGTTTTCCT AGTAAATTTA 60  
ATTTACAGAA ATNAATGGTA GCATTTAGTA ATCTACAAAG GAAATATCAA AGTNTTTTNN 120  
AAGCCTGTNA TATTCAGTGT GTGCCACAGG ATTGAAATAA ATGACAATGT AATTATGAAA 180

SEQ ID NO:3164

LENGTH:303

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03734

SEQUENCE DESCRIPTION:

GATCAGAATT CCGATTGAC GGGCAACCAA TCAATGAAAC AGACACACCT GCACAGTTGG 60  
AAATGGAGGA TGAAGATAA ATTGATGTGT TCCAACAGCA GACGGGAGGT GTCTACTGAA 120

AAGGGAACCT GCTTCTTTAC TCCAGAACTC TGTTCCTTAA AGACCAAGAT TACATTCTCA 180  
 ATTAGAAAAC TGCAATTTGG TTCCACCACA TCCTGACTAC TACCGTATAG TTTTCTCTAT 240  
 TCTTTCATTT CCCCTTCCC CATTCTTTA TTGTACATAA AGTAACTGGT ATATGTGCAC 300  
 AAA 303

SEQ ID NO:3165

LENGTH:311

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03736

SEQUENCE DESCRIPTION:

GATCTAGAGC CAGGCTGGTC AAGACAAGAA TTGGCTGGAA TAGGCTGCTC TTCCCCCATT 60  
 CCATCATGTG CTGTCCCCAC CCCTTTGGCC ACCTGGGCTG ACTGTGTCTT AATACCTCAA 120  
 GTGCAAGTAT ATAGGAGTAA GAAATNAACA ATGCCTGCCT CTTTATACTC ATGCCTACAT 180  
 TGTATGACAT CTAGTATGAA AGGGAAACAT TAAAGGAAAA CCCTTGTTTT GCTCTAAAAC 240  
 CTGAGGACGG TAAACACTGA GAGTAACCTG GTGCTTGGTT TGAAGTAAAA CACAAATACT 300  
 TCCCTTTTAA A 311

SEQ ID NO:3166

LENGTH:309

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03737

SEQUENCE DESCRIPTION:

GATCAAGGGC AATGCCAATG AACATCGGCA TGGATTATAA TTATGCCCTC CTGGAAGTCA 60  
 AAAAGCCCCA CAAGAGAAAA TTTATGAAGA TTGGGGTGAG CCCTCCTGCT AAGCAGCTGC 120  
 CAGGGGGCAG AATCACTTC TCTGGTTATN ACAATNNCCN NCCAGGCAAT TTGGTGTATC 180  
 GCTTCTGTGA CGTCAAAGAC GAGACCTATG ACTTGCTCTA CCAGCAATGC GATGCCCAGC 240  
 CAGGGGCCAG CGGGTCTGGG GTCTATGTGA GGATGTGGAA GAGACAGCAG CAGAAGTGGG 300  
 AGCGAAAAAN 309

SEQ ID NO:3167

LENGTH:309

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03738

SEQUENCE DESCRIPTION:

GATCTTGATA TGTTTTAAACA TTATCATGGC AGGGAAATAT ATAAAGAAGA AAAATATTTT 60  
 NACATTAAAC CTTTCTAAA ANTTGTAAAT AGAAAAATAA TTTGGTTTTT NATCAAGANC 120  
 AACACTTATC GTTATGTATT GTGTTAGTTA TATTGCCAGT CTGTTGCGAC TGACTCAAAA 180  
 AGTTAAATGT TGCCACTGCT GANGATGATT ATGNGCATCG CANACTTTGT TTCTGNCCCA 240  
 TTTTGGCAGT TTTNATATAC TCCNTTAAGA TGTGAATGT TACAGGTTAN TAAAGTTAAT 300  
 ACCTTTAAA 309

SEQ ID NO:3168

LENGTH:306

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03739

SEQUENCE DESCRIPTION:

GATCCTTTAC AGAAAAAGTT TTCTGACCTC AATTCTAAAG TAATTGTAGT AGGGAGCTGG 60  
 AGGACTTTCT TTCCCTTTAT GGTAATTTT TGAGCTACAA AAGAGCCTTG CAGAAATGGG 120  
 TGAAGGGATT AANCTTTTAA AAATAAATGC TATATATTAG GAAAATAAAA AATATTTTAG 180  
 AGCCAAGTTA ACAAGTACTT CAGCAAAACA TGCTAGTTTT ATGCAGGGGA TTCTGTATTG 240  
 CAAATGGATA CANTCCGACA TATATAAAAG AATCAGATTC TTAATATTG ACTCTTATTT 300  
 NGCAAN 306

SEQ ID NO:3169

LENGTH:306

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03740

SEQUENCE DESCRIPTION:

GATCATACCC AGAATTCAAT GTTTGATATT TTAAGAATGT ATGTTCTAGT GTTTTNAGA 60  
 GTGAGTCTAC CATCTGTATA AAAACACCTT GGGGGCAGGC AGGGGCATTT AAAAATGTAG 120  
 GACCTATCGT CCAGACTCAC AGAGTGGGGC TCCAGAATCT CCATTTTAA CAACTCTCT 180  
 TAAGTAATTC TGATGTGTAC CAAAATCAGT GCCATTGGTG TGTGTGTACG TAACTATATA 240  
 CATATGTGTG TGTGTGTATA TATATAATGT GTCATAACCG TAAACAATAA ACAATATCAA 300  
 GNTAAA 306

SEQ ID NO:3170

LENGTH:306

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03741

SEQUENCE DESCRIPTION:

GATCTGTCAT GTTTAAACCC CCTACTTCTA AGGGAACCTC TCTAATCTCT TATCCTCATC 60  
 CCCAAATAGT GTTTTCTTCC TCTGGGTCT TATAATNTG GTATCAATCT CACAGCATTT 120  
 AGTGCTTCCT GCCTGGTGTG ACAGTTACCT GTGTGCATGT GCAATTTCTA ATTTCCACG 180  
 CTAGACTGTG AGCTTCCTAA GGCAAGAATC ATGCCTTGTT GGTTCCTGTA TTCCTCATGG 240  
 TGCCAAACAC AGTGCCTTCT ACATTGCAGG CGCTGAATAA ACATTTTAA AGCAAAAAAA 300  
 TTNAAA 306

SEQ ID NO:3171

LENGTH:305

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03742

SEQUENCE DESCRIPTION:

GATCTCCAGT GGTCAAAAGA CATTTACCCT TAATATCAGA CAACATTTAT ATTTTAGTGA 60

AGAAACAAGT TCTCGGGTGG GGAATCTATG TTCTACTCAG ATTTATATGT TTGGAGGAAA 120  
 AAAGCCTTTT TTTGTAAAT ATTTAAATTT ATATANGAAA ATGTTAGAAA AAAATATGGG 180  
 GGAGTGTATT ATAAANCCTG CTTTATTTGC CATGGGGCCN GGGGGAGGCC NGGCCTAATA 240  
 CTCCTAAAGT ANGTGTTNGG GNCCNTNTTT TCTCCAATC CACCTGGTGC TGTTCCNTGT 300  
 AANGN 305

SEQ ID NO:3172

LENGTH:303

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03743

SEQUENCE DESCRIPTION:

GATCTCCGGG AGGGACAGAT GGCCAATNTC TCCCCTTCCA AAGCAGGCC TGCTCCCCGG 60  
 GCAGCTCCC GCCGAGGGGC CCAGCCCCCA ACCACAGGC AGGGAGGGGC ATCCCTCCCT 120  
 GCGGACCTCA GGGAGCGAAC GTGGATGAAA ACCACAGGGA TTCCGGACGC CAGACCCCAT 180  
 TTNATACTTC ACTTTTCTCT ACAGTGTGT TTTGTTGTG TTGGTTTNA TTTTNNATAC 240  
 TTTGGCCATA CCACAGAGCT AGATTGCCCA GGTCTGGGCT GAATAAACA AGGNTTTTCT 300  
 AAA 303

SEQ ID NO:3173

LENGTH:306

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03744

SEQUENCE DESCRIPTION:

GATCACTTTT GAGCTCTGAA GCTTTGAATC ATTCAGTGGT GGAGATGGCC TTCTGGTAAC 60  
 TGAATATTAC CTTCTGTAGG AAAAGGTGGA AAATAAGCAT CTAGAAGGTT GTTGTGAATG 120  
 ACTCTGTGCT GGCAAAAATG CTTGAAACCT CTATATTCT TTCGTTTATA AGAGGTAAAG 180  
 GTCAAATTTT TCAACAAAAG TCTTTTAATA ACAAAGCAT GCAGTTCTCT GTGAAATCTC 240  
 AAATATTGTT GTAATAGTCT GTTCAATCT TAAAANGAAT CAGTAAAGC AAACAAGGGG 300  
 TTAAAA 306

SEQ ID NO:3174

LENGTH:301

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03745

SEQUENCE DESCRIPTION:

GATCAGCAAA CACGATAGAG GAGACCAGTC AGTACTTCTT GGAGGGGGCN GGAGGAGAGA 60  
 GGAAAAGGGA GGGCGAGAAT NACCACACAA CACAGCCNTT NGACCATGAG CAGAAGCGTC 120  
 CGTGGGAACT CCACTGGGGT NGATGGGCTG CCTGCACAGC CCCTGGAGAG GGGGCCAGGC 180  
 ACACCTCAG AGGAGCTGCA ACCCGTGGCC TGGCCTGCTA CATGCCCTGC TTCCACGTGG 240  
 NTGCCACGGT GACACANCA CATTNACCA TCCCNCCGG GTCCTGGGA CGNAGNCACG 300  
 N 301

SEQ ID NO:3175

LENGTH:299

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03746

SEQUENCE DESCRIPTION:

GATCAAAGTT GTCATGAATA CTGACTTGGG CGTGGGACCC ATCCGAGATG TGCTGCACCA 60  
CATCTACAGT GCGCTGTATG TGGAGCTGGT GGTGAAGAAT CCCCTGTGCC CGCTGGGCCA 120  
AACTGTGCAA AGTGAGCTCT TTCGCTCCCG ACTGGACTCC TATGTTGCTT TTCTGCCNN 180  
NTTCTCCGCC CGGGCTGGCT GAAGCAACCT ACCTCAAGTN TCAGGAGAAT TCATGTCTNC 240  
CTGGGGCCCT TCCGAACCTT GTGCCAACTA AGGGCCCCCA NTGTAAGCCC CCGTACCTN 299

SEQ ID NO:3176

LENGTH:298

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03747

SEQUENCE DESCRIPTION:

GATCTGAATT ACTACAGAAA AATAATTATG TTGCTTGCTT AATNATTCCC AGGAAACTTC 60  
GTTGTAGGCA TATATTTTAT AAGAGTATTA TACAGTGTTA ACTATGCAAG TAAGTTCTAA 120  
AATNACACAA TNATCTGTGT AATGTTTATG TCCAATNACT GTGATTTATT CAACTCTGTT 180  
CTAAAGTTAT CTGGAATTGT CATGCTGCCT CAATTTACAG AAATCTATAA TAGATTTCTA 240  
TAGAAATGTA TAAAGACGTA GCAGTCATTT TGTGTTTCT AAATAGATAA CATATAAA 298

SEQ ID NO:3177

LENGTH:297

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03748

SEQUENCE DESCRIPTION:

GATCAGAGTA TGGGTTCTCC ATGTAGCAAT ACTTCAGTGA GATTAAGTAT AAACAGTTTT 60  
TGGCAAAAAA CAACACAGTC TACTCTTCT GCTTACAAAG ACAAAGCCTT ACAAACCTAC 120  
TATGAAGGTA AAGGGAGGAC AGCTTGCTTC TTTGCCCAGA CATTTACAAA GTTGTTTTTA 180  
AANCACACTC ATAAGTAAGT TTGGCAAGTT GTTTAAAAA TGTCTCTTG TTTGTACAG 240  
TTCTGTTAGA TGTGTNATA TTTTAANAGT TTAATTANA ANNTTNATT TNGTCN 297

SEQ ID NO:3178

LENGTH:297

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03749

SEQUENCE DESCRIPTION:

GATCTNATTA CCTTCACGGA AGGAAGCGGA CGCTCACCAC GCTATGCCCT CTGGTTCTNT 60  
GTGGGGGAGT CATGGCCCCA NNACCAGCCG TGGACCAAGA GGCTCGTNAT GGTCAAGGTT 120  
GTGCCACGT GCCTCAGGGC CTTGGTAGAA ATNGCCCGGG TAGGGGGTGC CTCCTCCCTN 180



GAGAATACTG TNGACCTGCA CATTTCAC AGNCACCCAC TCTCNCTTNA CCTCCGACCA 240  
GTACAAGNCC TACCTGCAGG ACTTGGTGGG GGGNATGGAT TTCCAGGGNC CTGGGTN 297

SEQ ID NO:3179

LENGTH:295

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03750

SEQUENCE DESCRIPTION:

GATCATCACA TTTCTGTAAT TGAGGCCATG TTCAGGTGCT AAGGAAGTAT GCCTTTNACA 60  
CAGAAGATTG AGAAAATTC CTAGATATAA ATACAGATAA ATCAGACGTT ACAGTGGTGA 120  
CGTAGTAACC ATCATGGCAA TGGAAAGNAG TCCAATTCAT AGCCTAAAAC TTCAAATGTA 180  
TTCTTAGGAG TCAGATTTTA CTGAATATTT TACCCACAAT AGCTGCCTAT TTTGTTATAA 240  
TAAATATAT ATAANTNTAT NTCTNNNCCT TCCTTTAANC TGTAANA NNNAN 295

SEQ ID NO:3180

LENGTH:295

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03751

SEQUENCE DESCRIPTION:

GATCCAGCA CTACTTTTAA TTACTGGAGA AATGGGGGGG ATAGAAAATT CTACTTTGAA 60  
TTATTTAGTT TTTTAAAG AGTGGGTTGT GTTGTNCTT CTCCACCTT TCAGCATTTA 120  
TAGAACATGC TGCCCCACAT ACAAAGTCAA GACCACTTAC TTTTATGTGA CACTAGTAGT 180  
TTGGGGTTAA TGTTTGTGT AAGANCAGCT GCATATGAGT AAAGTTACCC CAACCACAGT 240  
GAGGAGGAAG ATGTTACAT ACTGGAAGT TCCTGCCAAA TAAATTTTGC CCTN 295

SEQ ID NO:3181

LENGTH:294

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03752

SEQUENCE DESCRIPTION:

GATCAGTTAA TGCCTAAGAG TGAAAGTAGT TCTATTGACA TTCCTCAAGA TATTTAATAT 60  
CAACTGCATT ATGTATTATG TCTGCTTTAA TCATTTAAAA ACGGCAAAGA ATTATATAGA 120  
CTATGAGGTA CCTTGCTGTG TAGGAGGATG AANGGGGAGT TGATAGTCTC ATAAACTAA 180  
TTTGGCTTCA NGTTTCATGA ATCTGTAAGT AGAATTTNAT TTTACCCCA ATAATGTTCT 240  
ATATAGCCTT TGCTAAAGAG CAACTNATAN NTTANCCCTA TTCTNTCTGT GAAA 294

SEQ ID NO:3182

LENGTH:293

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03753

SEQUENCE DESCRIPTION:

GATCCGTGCT GGAAACTCGC AGGGGGACTT TTACATTAGG CAAATCAACA ACGTCAGCGC 60  
 CATGCTGGTC CTCGCCCCGC CGGTGACGTG CCCCCGGGAG TACGTGCTGG ACCTGGAGAT 120  
 GGTCACCATG AATTCCTCA TNAGCTACCG GGCCAGCTCT GACTGAGGC TCACCGTCTT 180  
 TGTAGGGGCC TACACCTTCT GAGGAGCAGG AGGGAGCCAC CCTCCNTGCA GCTACCCTAG 240  
 CTGAGGAGCC TGTGTGAGG GNCAGATGA GAANGGCAAT AAAGGGNGAA AGN 293

SEQ ID NO:3183

LENGTH:293

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03754

SEQUENCE DESCRIPTION:

GATCTGTGGA CTTTATTTT TTTAAGAGAC TTACTCAATT TNATGACTGT ACTACCTGAA 60  
 ACAAAGTGAG AAAGGACAGG TGTATTTTC TAAGTNATCA AGATAAATCC TTAANAATTC 120  
 AGTCTAAATN AGCAACCAGG AAGGAAAAAT ATATTAATAA CAACAAAAAA GTGGCACATG 180  
 TCCAGGCAGT GTGAGGATTT GCTGTATATA AGTTGCCTGC TTTGTATTNT TNAATCTCT 240  
 GCATCACTCA TTGGAAGTGC TTCTNAAGAG AGCTGCTCTG TGTTCAGTTG AAA 293

SEQ ID NO:3184

LENGTH:395

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03755

SEQUENCE DESCRIPTION:

GATCAAGATG ACCAAGATGT ATAAAGGGTT CCAAGCCTTA GGGGATGCCG CTGACATCCG 60  
 GTTCGTNTAC ACCCCCGCCA TGGAGAGTGT CTGCGGATAC TTCCACAGGT CCCACANNCC 120  
 GCAGCGAGGA GTTTNTCATT GCTGGAAAAC TGCAGGATGG ACTCTTGAC ATCACTACCT 180  
 GCAGTTTNT GGTCCCTGG AACAGCCTGA GCTTAGCTCA GCGCCGGGGC TTCACCAAGA 240  
 CCTACACTGT TGGCTGTGAG GAATGCACAG TGTTTCCCTG TTTATCCATT CCCTGCAAAC 300  
 TGCAGAGTGG CACTCATTGC TTGTGGACGG ACCAGCTCCT CCAAGGCTCT GAAAAGGGNT 360  
 TCCAGTCCCG TCAACTTGCC TGCCTGCCTN GGGGN 395

SEQ ID NO:3185

LENGTH:290

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03756

SEQUENCE DESCRIPTION:

GATCAGCACT TNANTCGGAA AGTTGGAACC TCTGACAAGA CCAAGTACTA CCTTCAAGGT 60  
 AATCCGTGGC TTCCACAAA GTTCCACATT TAACTTCCTC CAAGGAAGGG GATTAAATTT 120  
 TNAAACTAAC TCCCTTCAGT TGAATCTCG GACCACTNNN NAAAACAAA ACCATGGTCT 180  
 AATTNTTNC TTGTATGA ATTTNTTGAC AGTGGATTGA GCGATACGTG TCAGANCTAN 240  
 GCATTTCACT GTAGGCAAAT TGTGTCTTAG TTATCANGTA AATGTACAAA 290

SEQ ID NO:3186

LENGTH:288

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03757

SEQUENCE DESCRIPTION:

```
GATCCAGATG ACTGAATTTC AGATAGCATT TTTATGATT CCAACTCATT GAAGGTCTTA 60
TTTATATAAT TTTTCCAAG CCAAGGAGAC CATTGGCCAT CCAGGAAATT TGGTACAGCT 120
GAAATATAGG CAGGATGTTC AACATCAGTT TACTTGCAGC TGGAAGCATT TGTTTTGAA 180
GTTGTACATA GTAATAATAT GTCATTGTAC ATGTTGAAAG GTTCTATGG TACTAAAAGT 240
TTGTTTTATT TTATCAACA TTAAGCTTTT TTAAGAAAAT AATTGGGN 288
```

SEQ ID NO:3187

LENGTH:288

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03758

SEQUENCE DESCRIPTION:

```
GATCCCCAAA AAGTGAATAT CAATGGAGGA GCTGTTTCTN TGGGACATCC AATTGGAATG 60
TCTGGAGCCA GGATTNTGG TCATTNACT CATGCCTGA AGCAAGGAGA ATACGGTCTT 120
GCCAGTATTT GCAATGGAGG AGGAGGTGCT TCTNCCATGC TAATTCAGAA GCTGTAGACA 180
ACCTCTGCTA TTTAAGGAGA CAACCCTATG TGACCAGAAG GCCTGCTGTA ATCAGTGTGA 240
CTACTGTGGG TCAGCTTATA TTCAGATAAG CTGGTTTCAT TTTTNATN 288
```

SEQ ID NO:3188

LENGTH:285

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03759

SEQUENCE DESCRIPTION:

```
GATCAGCAGC TGTGGAATA AAGCTTGTA GCCCTCTGCT GGCCACAGTA NAGGAAAGTA 60
GCACAAATAG GATACAGTTG TATGTAGTCA TTGGCAACAA TTGCATACAA TTTTACTACC 120
AAGAGAAGGT ATAGTATGGA AAGTCCAAAT NACTTCCTTG ATTGGATGTT AACAGCTGAC 180
TGGTGTGAGA CTTGAGGTTT CATCTAGTCC TTCAAAACTA TATGGTTGCC TAGATTCTCT 240
CTGGAAACTG ACTTTGTCAA ATAAATAGCA GATTGTAGTG TCAAA 285
```

SEQ ID NO:3189

LENGTH:284

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03760

SEQUENCE DESCRIPTION:

```
GATCTCACCA TTATGACATC CATCCCCCTA GCTCACCACA TAGCACATAG AATGATATTT 60
TTAATTTGTA AGAGGCCATC CAGGTACTAA GGNCCCAAGG CATACAGATT CACAAAATNA 120
ACTAATCTTT TTGCCCTCAGA ATACCAAAAC ANCAAAANTA TAAAGCTGTA TTTGGACANC 180
TANAAAACAC CAAACTATCT CATTGCAATT NGTATTGTAG CAGATGTTCA GCAACTATCC 240
```

TAATCANTGT TATTGTGTTT CANTTTAACT GGGTTAAATG TTTN

284

SEQ ID NO:3190

LENGTH:282

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03761

SEQUENCE DESCRIPTION:

GATCTCGACT CCCCCCTGGC CACAGACCCC CAGGTCATTG TGTTCATGT ACTCTGTGGG 60  
CAAGGATGGG TCCAGAAGAC CCCACTTCAG GCACTAAGAG GGGCTGGACC TNTGCGGCAG 120  
GAAGCCAAAG AGACTGGGCC TAGGCCAGGA GTTCCCAAAT NTGAGGGGCG AGAAACAAGA 180  
CAAGCTCCTC CCTTGAGAAT TCCCTGTGGA TTTTAAAAC AGATATTATT TTTNTNATTA 240  
TTGTGACAAA ATGTTGNTAA ATGGGATATT AAATAGAATA AA 282

SEQ ID NO:3191

LENGTH:279

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03762

SEQUENCE DESCRIPTION:

GATCTGGAGA AGTAAGATGG CCAAATAAAA GCCTCTACCA ATCATCCTCC CCACAGGAAC 60  
ACCAAAATTA AGAACTATCT ACACAAAAAA GCACCTTCAT AAGAACCAAA AATCAGAGAG 120  
AACAAGGATA AAGAAGTATC CAAATACAAA GAAAATGTTA TGCAAGTGAC CTTTAGAGAT 180  
GTTTTAAAGA TGACAAAATA TTGATGANGA TGGGCCAACA AGTGTACTG TTACCTCTAA 240  
TAAAGTTTCA TCACTAGTTT CACCATGGTT AATTGGAAA 279

SEQ ID NO:3192

LENGTH:277

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03763

SEQUENCE DESCRIPTION:

GATCTGCTCA AATGCACCAA CACTGCCAAG TGAATAAGGT AGAAAAGAAA AATAACAGGT 60  
ATCGTCATCT GAAGGACAGA TGAATCTTTT TCTGCCCTT CTTCACAATG GAATATAAGG 120  
AACAATTATG GGATGTCATC AGAATGGATG CCATAGGACC TACAGCTCCC TTTCTNTTTA 180  
TTGTNATTAT ACTTTAAATA TGACATTGTC TTTNATGTGT ATGTCCTAT ATTTCAATG 240  
TATCTTTTTC CTTCAGTAAA CCTGATATTC AAATAAA 277

SEQ ID NO:3193

LENGTH:277

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03764

SEQUENCE DESCRIPTION:

GATCACAGGG AGCCTGTGTT TGTGGAGGT GTTCAGAAT CTNACTGAC ACCACGCTTG 60

GCGCCAGCA AACNTTCAC AGGCTGCATA CGCCACTTTG TGATTGATGG ACACCCAGTG 120  
 AGCTTCAGTA AAGCAGCCCT GNTANGCGGC GCCGTANGCA TCAACTCCTG TCCAGCAGCC 180  
 TGACATGACA NAGCACAGCT GCCCAANTAC AAAGTTCTTT AGNGCAATGN AAGNAACACA 240  
 AAAGCCAGNC CAGGAGGCNC CAGTTNCTTA TTCCTTN 277

SEQ ID NO:3194

LENGTH:272

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03765

SEQUENCE DESCRIPTION:

GATCACAGAA GCCACTGCAC TCCAGCCTGG GTGACAGAGT GAGACTCTGT CTCAAAAAAA 60  
 AATTAAATAA ATTATTATAA CCTTTCAGAA ATGCTGTGTG CATTNNATG TTCTTTTTTT 120  
 TAGCATTACT GTCACTCTCC CTAATGAAAT GTACTTCAGA GAAGCAGTAT TTTGTAAAT 180  
 AAATACATAA CCTCATTCTG ANTAATGTCC CTCATTTTGA CTATAACTGT GCTTGGTTTC 240  
 AAANGCAAAN TTAANCAAAA ATCTCAGTCA AA 272

SEQ ID NO:3195

LENGTH:272

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03766

SEQUENCE DESCRIPTION:

GATCTCCTGC TGGTCAGTGG GCGGGCGGCA GCACTACCGT GGCCTGGTAC CAGGTGAGCC 60  
 CGCTGGCCGC CCGCCTGCTC TACCCCTACC TGGCCTGGCT GGCCTTCGCG ACCACACTCA 120  
 ACTACTGCGT ATGGCGGGAC AACCATGGCT GGCATGGGGG ACGGCGGCTG CCAGAGTGAG 180  
 TGCCCGGCCC ACCAGGGANT GNAGNTGNAC CAGNAGGTGC CATNANGTTT NTAATNTAGT 240  
 GGCCGTNANG TTTTAATGAC CANTGGGNCT GN 272

SEQ ID NO:3196

LENGTH:269

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03767

SEQUENCE DESCRIPTION:

GATCCCATCT NTTTTCCCTT CTTTCCTCCT GGTTCGGGTC AGTTCAGAGG ATTTAACAAT 60  
 CACAAGTGTC CTGCAAAAAT GCCTGAACAT TATTCTTAGG CCCTCGTGGA TTTTTTTTTT 120  
 CAGAAAACCT AAACAAAAAA NGACTTACTA NGAAATATGT ACAGCTACCC CTGTTTTCAG 180  
 GCACTATGTT TGNGANCATT TTNGCCATTG ANGTTCACAC GTGGCATCAG CCCATGCAAG 240  
 ATAGGTTTCT GTATTNNTAT ATNANNNTN 269

SEQ ID NO:3197

LENGTH:269

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03768

## SEQUENCE DESCRIPTION:

GATCCAGCGA GGGGTCCAGG CCCTCTGCAT CTCCTCAGGC TCCAACCGTG CTTCTCAGC 60  
 AATNAGCTCT CCTCCAGCTT TGGCTTTGGG AAGCCAGACT CCAGGGACTG AAAAGNAGCA 120  
 ACAAGGAGAG GGTCTGCTTG AGAAATGCCA GATGCTTGGT CCCCAGGAAC TAAGGCGACA 180  
 GAGTGCAGGG TGGGGGCAAG ACTGGGCTGT AGGGGAGCTG GACTACTTTA GTCTTCCTAA 240  
 AGGACAAAAT AAACAGTATT TTATGCAAA 269

SEQ ID NO:3198

LENGTH:267

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03769

## SEQUENCE DESCRIPTION:

GATCCCCTGG AGCCCAGGAG GNAGGTGTGT NAGCTCAATC CGGACTGTAN CGAGTTGGCT 60  
 GACCACATCG GCTTTNAGNA GGCCTATCGG CGCTTCTACG GCCCGGTCTA GGGTGTGCGCT 120  
 CTGCTGGCCT GGCCGGCAAC CCCAGTTCTG CTCCTNTCCA GGCACCCCTC TTTCTCTTC 180  
 CCCTTGCCCT TGCCCTGACC TCCCAGCCCT ATGGATGTGG GGTCCCCATN ATCCCAGCTG 240  
 CTCCCAAATA AACTCCAGAA GAGGAAA 267

SEQ ID NO:3199

LENGTH:266

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03770

## SEQUENCE DESCRIPTION:

GATCTGAACC TGTCATTGA AGTACAGGTT AAAGACTGTG TCCACTTTGG GCATGAAGAG 60  
 TGTGGAGACT TTTCTTCCCC ATTTTCCCTC CCTCCTTTTT CTTTCCATG TTACATGAGA 120  
 GACATCAATN AGGTTCTCTT CTCTTTCTTA GAAATATCTG ATGTTATATA TACATGGTCA 180  
 AATAAATAAA ACTGGCCTGA CTTAAGATAA CCATTTTAAA AAATTGGGCT GTCATGTGGG 240  
 AATAAAGAA TTCTTTCTTT CCTAAA 266

SEQ ID NO:3200

LENGTH:265

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03771

## SEQUENCE DESCRIPTION:

GATCTGACTT GGGGAAAGGG TTATCAGAGC CTAGAGGGGC TTAAAAAGTA ATCATTTGAT 60  
 GTACATACCA CACTCCTTGG CTTCTTTTCT CTTCCCTTAA CCCTTCTGC TTTTCATTAA 120  
 CCACATTCTT GCACAACTCA TTTCTGAAAA CCTACCATGT TTCTTTACAG AGCCATCCAA 180  
 AAATTTTTTG TCCCTACATA GCAATTTTCT GTGGCACTGA GAAACCATGT ATGACCACAA 240  
 TAAAAATCCA TTTTGTGAAA GGAAA 265

SEQ ID NO:3201

LENGTH:262

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03772

SEQUENCE DESCRIPTION:

GATCTCAGCT CACTGCAACC TCTGCCTCCT GGGTTCAAGC GATTATCCTG CCTCAGCCTC 60  
 CTGAGTAGCT GGGATTACAG GCATGCGCCA CTATGCCAG ATAATNTTTT TGTATTTT 120  
 GTAGAGACAG GGTTTTACCA TGTTGGCCAG GCTGGTCTGG AACTCCTAAC CTCAGGTTAT 180  
 CCACCCACCT TTGGGCCTNC CAAAGTGCTG GGATTATAGG CATGGANCCA CCGTGNCTGG 240  
 NCANAGATGT AAGTNTAAAT TN 262

SEQ ID NO:3202

LENGTH:260

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03773

SEQUENCE DESCRIPTION:

GATCCACCTG CCTCGGCCTC CCAAAGTGCT GGGATTACAG GCGTGAGCAC CATGCCANC 60  
 CACCTTTTCT ATNTTATAGT ACATAAACAC TCACCACTGT GTCACAGTCA CCTACAGTAT 120  
 TCAGTACAGT AGCATATGCT GTACAGGCTT GTAGCCTAGG AGCAATAGGC TATACCATAT 180  
 AGCCTAGGTG TGTACACCAT CTAGGTTTTT CTAACCTACAC TCTATGGNGT TCACACAATA 240  
 AAATTGCCCCA NCGACGCAAA 260

SEQ ID NO:3203

LENGTH:225

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03774

SEQUENCE DESCRIPTION:

GATCCCAGCT TATGGCCTTG ACCCAGCCGT CCTCACAGAT GCCGGGTGAC CCTCTAGCTC 60  
 TCTCTGCATC TCCCACCCCC CGACACCCTG GGACCCTCGA CCCCACCTT CTTTCCTACC 120  
 AGCCCAGAGC CTGTGGCTT GTACAGTTTT GAAACTCCCG TTCTATTTTA TGATGGTTGA 180  
 TAATAGTCAG TAACNNAATA AAGGAACGTT TGTTAAAATA TCAA 225

SEQ ID NO:3204

LENGTH:216

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03775

SEQUENCE DESCRIPTION:

GATCTGCCCC GCGCGNACCC GTGTTATGTT TTGTGCTGTG TCCACGCGCT AAGACGACCC 60  
 CCTCCCCGT ACTGACTTCT CCTATAAGCG CTTCTCTCG CATAGTCAG TAGCTCCCAC 120  
 CCCACCTCT TCCTGTGTCT CACGCAAGTT TTNNACTCTA ATATNNNNAT GGCTTTTTTT 180  
 CTTGCGCAA AAAATAATAA AACGTTTCTT CTGAAA 216

SEQ ID NO:3205

LENGTH:256

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03776

SEQUENCE DESCRIPTION:

GATCTGACAC TTCCTTTCCA TTGCTTGGCC TGAACAGACT GACCTTGTA ACTTAAGCCT 60  
 GGAGTCCATG CCTCGTCTTC CTTTGTTC TTGCTGTAC CAAGAAAGCC AAGGAAGAGC 120  
 AGCCTGACTC ATTCTTCTTG GCTGCAGCCT CTTCCCACT TCCTGGGAGT GACCCAGCGT 180  
 TATTCTGCC TCCTCACTCC TATTCTCTT GCCTTTGTGT AAAAATAAAA TGGAAATAAA 240  
 CAAGTTGCAC AGTAAA 256

SEQ ID NO:3206

LENGTH:256

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03777

SEQUENCE DESCRIPTION:

GATCTCTTT NATCATATAT GACATTAAGG CTACAGAAGT TTTGTGCAAN AATCTTAATT 60  
 CATATTTATN AATTTCAAGG GAATATTGAA AGGTTTAAA ATGGCATACA GATAATGGAA 120  
 AATAAGCTTT ATGTTTCAAG AAGGGCAGAC TCACGAATTT TTTAGAAAAC AGTGCTTCTT 180  
 AATGATATGC TATTATNCTT ATNAGTTATG TGCAAGCTTT GTATATNCTT ATATNTATAT 240  
 NTAACNTAA CCCTCN 256

SEQ ID NO:3207

LENGTH:253

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03778

SEQUENCE DESCRIPTION:

GATCCCAATT CGAGAGGTTT TAACCCCAAG ANCGGACATC TCGATTGCAC ACGTTCTGGT 60  
 TGCCCGAGCC GACCTGTCTT GTCTCGTCCC AGCCACCAGC GTGGCTGTGC GNAGAGGGAC 120  
 CTGCTGTGCC ATCAACAAGG TGCTTATGGG NAACGTTCCA TACCGGGGNN GCCGCCCAA 180  
 TNAGCTGGAG CCTCCCATGC CCACCTGGAG NAGCNGAAGA GAGGATGGAG GCCCCAGTG 240  
 NNGGNNTCGC ANN 253

SEQ ID NO:3208

LENGTH:252

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03779

SEQUENCE DESCRIPTION:

GATCATGNTT CATGTGCTAA AAATAAACTT GAAACACGGA AGTAGTGGTT GGTCCAGTTT 60  
 GAAAGCTCTT ATNAGTATTC TTCATCCTGG CTGTAATAAT AGCCATNATT TGTNATGCCT 120  
 TTGTTATGTA GCAGACACTC TTAAGNATTT NATGTGTATN ATTCAAATTG CTATNACTGT 180



TCTTTTATA GTTGAGAATC TCAGGATACC TACATTTATC ACTTTTCAA TATATATGTA 240  
TTTCTTATTA AA 252

SEQ ID NO:3209

LENGTH:251

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03780

SEQUENCE DESCRIPTION:

GATCAAGCTG TCCGAACCTA CCAAGAGCAC AAAGCAAGCA TGCATCCCGT GACTGCAATG 60  
CTGGTGGGGA AAGACTTAAA AGTGGATTAA AGACCTGCGT ATTGATGATT TTAGAGATTT 120  
CTCTTTTTTA AATGGAATTC GTAAAGAAAT ATAAACTTC AGCTCACAAT TAAACTGTC 180  
TTTTTAGTTT TGGCTTTTTA TTGTTTGTG GGTGATTTTA CTGAAATAAA GTTGAGCTAC 240  
TTCTTCTTAA A 251

SEQ ID NO:3210

LENGTH:250

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03781

SEQUENCE DESCRIPTION:

GATCTTGTGT TCAGATGAAA GTGCAAGTTT TTATTAATTT GGATTGCCTG AACAGTGTAT 60  
CCCATGATGA TGAAGGAAAA TGGAGAGATT TTTCTTTTA ACTCTGNNNN NTCAGAGATG 120  
AAGCCACGCC TTTCCATTTT TCAATGCTGC ATATTTAATC TGCAACAAAA ATGTTAAGCC 180  
ATAACAGCCT TTTTATATTT TAGTTTGTC CTTTGCATT GCAGAATAAA TACTGGNTAA 240  
CCATTTTAAA 250

SEQ ID NO:3211

LENGTH:251

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03782

SEQUENCE DESCRIPTION:

GATCTTACTT GTCCTGCTT ACGAAGATTN CCCAATNACT GGTCATCTGA CCCTACTTGA 60  
ACACTCCTGA ACAGTCATGT TTTNAAAAT NTTCTTTAT ATCAAGTCAG AGAGTATACT 120  
TCTATAAATT TNACTCATGG ATGTTAGGAA ATCTAGTCAT CTTCCCTGTG ATTGCCCTGT 180  
TAAGTATTTA ACCATAGCTA TCATGTGTTT CCCAAATCTT CTCTAGATTA AATATCTTCA 240  
GTTACTTCAA A 251

SEQ ID NO:3212

LENGTH:250

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03783

SEQUENCE DESCRIPTION:

GATCTAGACT GAGAATCAGC CTGAGCTTTA CACAGCTGGG GTCTGTACT CGCGTTTGT 60  
 AGACTTTTGT GTAACATTTT GTACCGTAGA CAGAATGTGA GGAGGAAGTA ACACACAGAG 120  
 GAGGATGTGT GTGTATGCAT GTGTTTGAAT TCACAAGGAA GAAATTATTT ATCTTGAGCT 180  
 TTTTCCTTTG TTATTCAATT TCTATTGATT TATTAGTAAT AACAAATGATA ATAAAATGTA 240  
 AATGAGCAAA 250

SEQ ID NO:3213

LENGTH:250

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03784

SEQUENCE DESCRIPTION:

GATCTAACGT GTTCCAGTGT CTGTCTGAGG TGTCTTAAAA AATCAGAACA AAACCTCTAT 60  
 TATCCAGAGT CATGGGAGAG TACACNCTTT CCAGGAATAA TGTTTTGGGA AACACTGAAA 120  
 TNAATCTTC CCAGTATTAT AAATTGTGTA TTTAAAAAAA AGAACTTTT CTGAATGCCT 180  
 ACCTGGCGGT GTATACCAGG CAGTGTGCCA GTTTAAAAAG ATGAAAAAGA ATAAAACTT 240  
 TTGAGGNAAA 250

SEQ ID NO:3214

LENGTH:250

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03785

SEQUENCE DESCRIPTION:

GATCATAGGT CTGGACACTC CATCCTTGCC AAACCTCTAC CCAAAAGTGG CCTTAAGCAC 60  
 CGGAATGCCA ATNAACTAGA GACCCTCCAG CCCCCAAGGG GAGGATTGG GCAGAACCTG 120  
 AGGTTTTGCC ATCCACAATC CCTCCTACAG GGCCTGGCTC ACAAAAAGAG TGCAACAAAT 180  
 GCTTCTATTC CATAGCTACG GCATTGCTCA GTAAGTTGAG GTCAAAAATA AAGGAATCAT 240  
 ACATCTCAAA 250

SEQ ID NO:3215

LENGTH:250

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03786

SEQUENCE DESCRIPTION:

GATCAAACTG CCATTCACAG TGTAAGGCAG CACTTAAATT TCGAACCTAA AGTTTAGATG 60  
 CATTGTATAA AAAAACCTAA AAGCAGTATC TGTTNNTNNN GCTGTAAACC AAGTTGGAAG 120  
 CTATTGGGAT AATTTCTTAA ATATTGATGA NCTTTGGAGT ACTGTTTCTN CCTTCAAAC 180  
 GAATGTAATT AATNCATGAT TAAATGCACC TNATATGTTT AANCAATCTT TGTATACTTN 240  
 TGGGNTTTTN 250

SEQ ID NO:3216

LENGTH:252

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03787

SEQUENCE DESCRIPTION:

GATCGCCACA CTGCCACTCT GCTGCCCAGC CACCAGGATT TCTGCCTGGA GCCCTTTGCC 60  
 CTGTCCCTGC TGCCTGAGGT GGCCTAGAGC AGAGGAGAAG AATTTGCTCC AGGCCAGGAG 120  
 CACAAATCGT TGTTCATGA ATTTNTCTCC AACTCGACCT TGGTAAACGG AAATNTTGGG 180  
 GGTGAAGAGA AACAACTACT ATTTTNTCT TTTTATCTG GTAAATAATT AAAAGAAAAA 240  
 CCGAACACTA AA 252

SEQ ID NO:3217

LENGTH:336

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03788

SEQUENCE DESCRIPTION:

GATCTGTATT GGATAAGGAC CAATGNACAG CAAAGCAAAA ATGGCTTTAA AGCTTGGTGT 60  
 TACTTTTNTT AAGTTGTTTA ATTATAGTTA AGCAATTTCA AAAATGCTCC AAAGAAATGT 120  
 GAAAGGACCT TTTGTCACAG CACTTCAGAA AATACACAAC AGCCCTTCT GCGCCCGCAC 180  
 AGAAATGCTG CAGAGTATAT AAAACTTGAG ACATTTTGT AGGATGCCTG ACGAGGTGTN 240  
 GCCTTTTATC TTGTTTCCGG ATGCATATTT ATTACGAGTA CTCTGGTTAA ATATTGAAAA 300  
 GTTATATGCT GTAGTTTTTA GTATTTTGT TTTGTN 336

SEQ ID NO:3218

LENGTH:227

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03789

SEQUENCE DESCRIPTION:

GATCTCGAGT GTTATTTTCT GATTGTGGTG TTGAGAGTTG CACTCCCAGA AACCTTTTGA 60  
 GAGATGCATT TATAGCCCTA GGGGTGGTAT GACCCAAAGG TTCCTCTGTG ACAAGGTTGG 120  
 CCTTGGGAAT AGTTGGCTGC CAATNTCCCT GCTCTTGGTT CTCCTCTAGA TTGANGTTTG 180  
 TTTTCTGATG CTGTTCTTAC CAGNTTGGGA AAAAAGTGTG GATTAAA 227

SEQ ID NO:3219

LENGTH:248

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03790

SEQUENCE DESCRIPTION:

GATCTGCATA GAAAATTTN ATACAATTTT TTGAAAGTCC TTAGGTGAAA CATTTACCCA 60  
 TTAAGGAGGA AGCAGAAATA CTGAGACATG AAAGGCATTA TCAACTAACT CTAGACTCTA 120  
 GAACCCATTC TNGCATATCT CACGTGCAAT TTTTAAAAAT AAGTTAATAA TTCANCTCAT 180  
 ATCAACAAAA GCCTTTGNNA CATGGGTTN CACTNGATAT CACCTAGTGC TNANGNTAGA 240  
 NGCCAANN 248

SEQ ID NO:3220

LENGTH:245

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03791

SEQUENCE DESCRIPTION:

GATCCAGTGC TCTCCCATCT AACAACTAAA CAGGAGCCAT TTCAAGGCGG GAGATATTTT 60  
AAACACCCAA AATNTTGGGT CTNATTNNA AACTTTTAAA CTCCTACTG ATGATTCTNA 120  
CGCTAGGCGA ATTTTTCCTACACATAGTG TGTGTNTTTT GTATACACTG TATGACCCCA 180  
CCCCAAATCT TTGTATTGTC CACATTCTCC AACAAATAAG CACAGNGTGG ATTTAATTAN 240  
GCAAA 245

SEQ ID NO:3221

LENGTH:244

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03792

SEQUENCE DESCRIPTION:

GATCCACCCG CGTTGGCCTC CCAACGTGCT GGGATTATAG GCGTGAGCAC CACGCCCCGC 60  
CTAAATCCA TATTCAAAGA AGCAATTTCA GTTCCTTTCT AAGCTTTGTC AGTCAAGGGG 120  
CTCCACTGAC TTCCTAGGCC CTGTAATTTA ACCAGTCTTT AAGGTTTTGC AGGAAAGTCC 180  
CTTCTTCCAA GTGGTTTTTC CAAATCGCAC AATGGCAAAG CCAAACAGAG GAAGAAACAT 240  
TAAA 244

SEQ ID NO:3222

LENGTH:244

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03793

SEQUENCE DESCRIPTION:

GATCAGATTG CTGAAACACT ATGGGAACAG GTATTGAAGC CCCTGGGTGA TAATNTAATG 60  
GAGGAAAACA TAAGGCAGTC TGTAACAAAC TCTATCAAAG CAGGCCTGAC TGACCAGGTG 120  
TCTCATCATG CCAGATTAAA GACAGACTGA CAGTTCATCT CCTCACGGAC TCCACTCTCT 180  
TTTTTTTNA TGCTTGCTGT ACAATGAGAA CTCAAATAAA ANTAAACCAA AGTTTACAAT 240  
CAAA 244

SEQ ID NO:3223

LENGTH:246

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03794

SEQUENCE DESCRIPTION:

GATCCAGGAG GAGCAGCACC CGAGCCCTGG AGTGGCCCAG TACCCTTCCA AGAGGCCACA 60  
GTCCCAGCCA GGACAAAGTA TGCGGCCCAT CCTGGTGCGN CAGGTGGGAC AATGTGAACA 120  
TGGACTCGAA GACATGGCCC TTTCTCTGTA GTTGATTTTT TAAATGTGCC ATTATTGTTT 180

TTAAAAAANN CGGNAAAANG AAANGCANAC AAATAAAACA CCTTTAAGAG GCTTGAANGC 240  
GNCAAA 246

SEQ ID NO:3224

LENGTH:243

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03795

SEQUENCE DESCRIPTION:

GATCATAACT CATGAATATG TTTGTAATCA TGGTAATTTA GATTTTATG AGGAATGAGT 60  
ATCTGGAAT ATTGTAGCAA TACTTGTTT AAAATTTGG ACCTGAGACA CTGTGGCTGT 120  
CTAATGTAAT CCTTTAAAA TTCTCTGCAT TGTCAGTAAA TGAGTATAT TATTGTACAG 180  
CTACTCATAA TTTTAAAAAG TTTATGAAGT TATATTTATC AAATAAAAAAC TTTCCNATAT 240  
AAA 243

SEQ ID NO:3225

LENGTH:241

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03796

SEQUENCE DESCRIPTION:

GATCTGACCT TTTTTTCCA GTTGAAATGT ATTAACACAC CTTCCACAAT NATTTTATAA 60  
GAGTCAGCAT AACATAGTGG ATAAGAACTG TGAGATGTT AACCTCTCAG TAACTCGGT 120  
CTCTCATTAT AAAATAGGAA TAAATCAGT ACCTGTTCA TATGAAGGTC GTTCTGAGA 180  
ATTAAATGGA CTAATGTATG CAAAAAGCCT GGCAAACAAT AAACACTCAT CTGACTTTAA 240  
A 241

SEQ ID NO:3226

LENGTH:240

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03797

SEQUENCE DESCRIPTION:

GATCAAAATA TATTGTCCA GAAACTCTTG GGCCAGTTCT CTGAGAAGGA ACTGGCTGCT 60  
GAAAAGAAAC GCATCCTGCA CTGCCTGGGG CTGCAGAAG AAATCCAGAA ATATTGCTGT 120  
TCAAGGAAGT AAGAGGAGGA GGTGATGTAG CACTTCCAAG ATGGCACCAG CATTTGGTTC 180  
TTCTCAAGAG TTGACCATTA TCTCTATTCT TAAATTTAA CATGTTGGGG AAACAAGAAA 240

SEQ ID NO:3227

LENGTH:239

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03798

SEQUENCE DESCRIPTION:

GATCCTCCCA CCTNCAGCCT CCCAAGTAGC TGGGACTACA GGCACATGCT ACCATGCCCA 60

GCTAATTA AAAAATTTT TTTTGTAGA GACGGAGTTT CACTGTGTTG CTCAGGCTGG 120  
TCTTGAATC CTGAGTTCAN GCAACCCTCC ACTTCAGCTT CCCAAAGTGC TGGGATTACA 180  
GGCATCACTG GCCCAGGCAG AGCCAATTNT GTATAATAAA TCTGTNTCTC TCTGTCAAA 239

SEQ ID NO:3228

LENGTH:238

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03799

SEQUENCE DESCRIPTION:

GATCAAAATTT NATTGAATGG TTTGAGGTTG TAGCTCTATA AATAGTAGTT TTTAACATGC 60  
CTGTAGTATT GCTAACTGCA AAAACATACT CTTTGTACAA GAGGTGCTTC TAAGANTTTN 120  
ATTGACATTA ATGACACTGT ATACAATAAA NGTGTAGTTN CTNAATCGCA CTACCTATGC 180  
AACACTGTGT ATNAGGTTTA TCATCCTCAT GTATTNTNNT GTGACCTGTA TGTNTATN 238

SEQ ID NO:3229

LENGTH:237

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03800

SEQUENCE DESCRIPTION:

GATCCAAAGC CATCCAGAC CTTCCCGGGC CCCTCTTCCT GGCAGATGAC TCTCCCGGCT 60  
TCTGCGTCCT GCCTGCCCAT TCATACCAGT TTGAACTGCA ACAGCCTAGC TCCTCACCTG 120  
TGCACCTCCT TCCCCAGGTG TGCACGTCTC CAGCCCCGAG CGCGTGTCTT CCTGCTCATC 180  
TGGGTTTCCT GGGCAAAATAG TGGCCCTCAA TAAATNTTTG CTGAGTGAGA ACATAAA 237

SEQ ID NO:3230

LENGTH:515

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03801

SEQUENCE DESCRIPTION:

GATCGCCAGA GCCCAGGAGT TTGAGGCTGC AGTGAGCTAT GAGGGTGCCT CTTTGCTCCA 60  
TCCTAGGCAA CAGAGTGAGA CGCTGTTTAA AAAGGAAAAA ATCCTTCNT AGAGCTAGTA 120  
TCCTAAAGCT GCAGAGCTAG CCCATGACCT CATTGGTTTC NTTGTCCTG GGGTGCCTTT 180  
CCTGAATCTT TGGGGGTGAA GGGAGTNTTG CTCCCAGTCC AGAGGCCTGA TTCTTTTCGG 240  
ACTGGGTCTT CAAGACACGA CCAGGTTCTC AAGACACGAG TCCCCTNTT CCTNCCCATT 300  
AAAGGGGGTT TNTNAGAAGC AAGANCAGCC CCTTTCCCA AGTCACAGCC TGAAGGGAGG 360  
CCCCNGAGAN GCTTCCCTCC TTTCCCNCA CCCTGNTTCC TTAACCTNT TTTGNCCCTG 420  
NTTTTTTTAG GAANCTGGNA GTTTCAATTN GTTTTTAANG GGGGATTGGG GGGGAAGGGA 480  
AGNCTTNGGG GGACAAAAA NNTTTTNTT NCAAN 515

SEQ ID NO:3231

LENGTH:227

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03802

SEQUENCE DESCRIPTION:

GATCAGTGTA TCGAAAAAGG TTTTtagGAA GTATGGCAAA AATGTTGTAT TGGCTATGAT 60  
GGTGACATGA TATAGTCAGC TGCCTTTTAA GAGGTCTTAT CTGTTcAGTG TTAAGTGATT 120  
TAAAAAATA ATAACCTGTT TTCTGACTAG TTAAAGATG GATTGAAAA TGGTTTTGAA 180  
TGCAATTAGG TTATGCTATT TGGACAATAA ACTCACCTTG ACCTAAA 227

SEQ ID NO:3232

LENGTH:224

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03803

SEQUENCE DESCRIPTION:

GATCACTAGC TAATNCTCAT ATCCATGCCT TTTTGTCTG TTTACAGTCT TAAAAGAGGT 60  
AAAACAGCAA ATATTTTTTN AAGGGAActA TAACCTTAGG ATTCTGAAA ANAATTCAA 120  
AAAAAATA AAGACACTGT TGCCAATGTG NCCCAAACT TAAGACCATA CTAATGGCAT 180  
ATATTTGTNA CAATNAAAAA TTAANTTTAC TACTTAATCC TAAA 224

SEQ ID NO:3233

LENGTH:310

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03804

SEQUENCE DESCRIPTION:

GATCGGTGCT TTGTGTAAAT ACATCTTTAA CATTGGGTG GAGAGGGGCC TTAAGAAGGA 60  
CAGTTCATTG TAGGAAAGCA ATTCTGTACA TGAGTTTAAG CATTCTTGT GCATTGTCTC 120  
TGCAGATTCT ATTTTGTITT ACAATATTAA AATGTATGN AGCAAAATGG GTGGATTTTC 180  
AAATAAAATG CAGCTTCCAC AAAAGTTTG TNATGGTATT CTGGTCTGAG ATGCATTNC 240  
ATTTNCCTN TCTCTNTTA TTATCAATAT TGTNATTTT CCCTAATAAA ATATACCCAG 300  
GTGNATTAAA 310

SEQ ID NO:3234

LENGTH:220

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03805

SEQUENCE DESCRIPTION:

GATCAAAATTT TTNAGACAAT CCTTGGTCTG GATTGGTTAA TGAAAATNTN TTGTTTAAGA 60  
GGTTCtATTA AAAAATATTT CTAGTGTATT AGTCATAATT NTTTTGTGG AGTGGGGTA 120  
AACCACACCA TTAAGGGAAT AAAATGTAAT TTGAAAGAGG TGATTATAAG ATTTGTTCA 180  
GGCCCCAAAA TATAAATAAA AATTGGTGTG GAATCTCAA 220

SEQ ID NO:3235

LENGTH:219

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03806

SEQUENCE DESCRIPTION:

GATCGATACA GAGCATCTGC ACTGGGATTG TCCGCCCCGC CTGTCAGGGA GGCCTCGGGG 60  
GCTAATNGAG CTGAGGGTAT AGTCGGCCTT GGACCCTCGC TTTTTCCTT TCCTGTACTA 120  
TNAAGATAAC TGCCTTATCT CCCCCTCAGG ACTGTTTGG GGATTAAATA GGACGTTTAA 180  
ATNACCAACG CTCTTTGAAA TAAACATTTC AAAATTAAA 219

SEQ ID NO:3236

LENGTH:219

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03807

SEQUENCE DESCRIPTION:

GATCAAAAAA ACTTTTCTTC TTTTGCAAAG AAAGCTTTTT GTTTTAAACN GCAACGTACT 60  
TTTCCCTAC CTGAAGAGA CATGGTGGTC GCAGCTTCN ATCTATATGA AAAAGTTTTC 120  
GATGTATTGG AATNATTGG GAATGCTTTT AAAACAATTT GTAATTATTT CTTTACAAAC 180  
CAAAACAGAA CAGAAAGGTG TGGTGCTGGA ACATCGAAA 219

SEQ ID NO:3237

LENGTH:265

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03808

SEQUENCE DESCRIPTION:

GATCTGCATT TTCAGAAGAG GACAATCAAT TGAAACTAAG TAGGGGTTTC TTCTTTTGGC 60  
AAGACTTGTA CTCTCTCACC TGGCCTGTTT CATTATTTG TATTATCTGC CTGGTCCCTG 120  
AGGCGTCTGG GTCTCTCCTC TCCCTGTCAG GTTTGGGTTT GAAGCTGAGG AACTACAAAG 180  
TTGATGATTT CTTTTTATC TTTATGCCTG CAATTTTACC TAGCTACCAC TAGGTGGATA 240  
GTAAATTAT ACTTATGTTT CCAA 265

SEQ ID NO:3238

LENGTH:217

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03809

SEQUENCE DESCRIPTION:

GATCTACTAT AAGGTATTCT ATATTTATAT NACTTCAGAG ACGCGTATGT AATAAAGNAC 60  
GCCCTCCCTC CAGTGTCCAC ATCCAGTCA CCCCAGAGGG TCGGGCAGGT TGACATATTT 120  
ATTTTGTCT ATTCTGTAGG CTTCCATGTC CAGAATCCTG CTTAAGGTTT TAGGGTACCT 180  
TCAGTACTTT TTGCAATAAA AGTATTTCTT ATCCAAA 217

SEQ ID NO:3239

LENGTH:217



TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03810

SEQUENCE DESCRIPTION:

GATCGGTGCT ACCAAGGAAG AGAGCACACA GATAAGACAG AGGGGAGGAG GTGGGCATT 60  
 CCTACATTCC TCCTTGTTN CCGCTGCTGA NATTGCACTA TTTATTGCAA TNTAAATNTA 120  
 TCCTGAAGGT GGGGAGGAAT GTTAAANCTA CCAATNTCCGT GTGTCATCTT GGTNTGTTTT 180  
 TNTCCCTGTT TGTAGCAAGA CTCTNATGAT AATNCTN 217

SEQ ID NO:3240

LENGTH:217

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03811

SEQUENCE DESCRIPTION:

GATCTATATG AAGTGGGAAT ACAGCATATA TCTGGATATT CTTATAGTTA TCTTTTAAAC 60  
 ATCTTATTTT TTTCATTAAT TACATATCAA CATTAAATNT GTATCTNGAA GCAAATNGAT 120  
 TTTGTATAAT TAAATGTGTC AAGCATCTGT ATTAATTGAT TNGATGGCAT AAGGTATGAA 180  
 ANTANTGTAC TGCCCCATGT ATNACTGTTC CAACCAN 217

SEQ ID NO:3241

LENGTH:214

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03812

SEQUENCE DESCRIPTION:

GATCATAAGA CCAGGAGTTC AAGACCGGTC TGGCCAACAT GGTGAAGCCT CATTNTACT 60  
 AAAAATACAA AATNAGCCAG GTGTGGCGTC ACATGCCTGT AATCCCAGCT ACTCAGGAAG 120  
 CTGAGGCAGG AGAATTGTTT GAACCTGGAA GGTGGAGGTT GCAGTGAGCC GAGATTGTGC 180  
 CACTGCACTT GACAGAGCGA GACTCTGTCT CAAA 214

SEQ ID NO:3242

LENGTH:214

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03813

SEQUENCE DESCRIPTION:

GATCATCGAG GACGAGAAGA TGGTGGTGGT GGCNTGTCAG CCGACTGCAG AGCTNGAGGT 60  
 GGGCTCGGCG GAGGTCATTG TGGAGTCCCT GGGCCAGGNN GGCCTGGCCT CCCAGCTCCC 120  
 CGGCCAGAGA CTGTGTGCAG AGNAGAGCTT CACCGGCCAG GTGCTCTGGA GCCCTCCCTC 180  
 ATNATNACAG CTGCTGTCCC CGAGGACTGT GATN 214

SEQ ID NO:3243

LENGTH:212

TYPE:nucleic acid

2153480

TOPOLOGY:linear

CLONE:HUMGS03814

SEQUENCE DESCRIPTION:

GATCTGGGGA GCTNTGACTG AAGGGGCTTG GTCTTCCACT CAGCATCAGC NTGGCAGTCA 60  
CCACCCCACT NAGGACCTCG ATGTCCAGCT GCTGTCAGGT CTGATAGTCC TCTGCTAAAA 120  
CAACACGATT TACATAAAAA ATCTTACACA TCTGCCACCG GAAATACCAT GCACAGAGTC 180  
CTTAAAAAAT AGAGTGCAGT ATTTAAACCA AA 212

SEQ ID NO:3244

LENGTH:211

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03815

SEQUENCE DESCRIPTION:

GATCTCTGTA GACTAGAGTC TTGCAGCAAC ACAGAATGTA ATATAAGGCA AATGCATCTG 60  
GGACTTGACC AAAGTTGTTT TGTTTTGTTT TTTTAACTGA AAGTAACAGA AGGACCTTTC 120  
TTAAATGTGA CAGATGGTCC TGCAGTGTGA ACCTGAAGGA CAGTGTTAAA GCTGGGCTCT 180  
AGTATATTGA TGATTCTGCG ATAAGTGTGG N 211

SEQ ID NO:3245

LENGTH:210

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03816

SEQUENCE DESCRIPTION:

GATCTATTTT TGCAGTGGAA TATCTGAGAA TTGCAAACT AGACAAAAGT TTCACAACAG 60  
ATTTCTAAGT TAAATCATTT TCATTAAAAG GAAAAAAGAA AAAAAATTTT GTATGTCAAT 120  
AACTTTATAT GANGTATTAA NNTGCATATT TCTATGTNGT AATATANTGN GTCACAAANT 180  
AANGCTGTGA CAGTNCTGTT GGTCTACAAA 210

SEQ ID NO:3246

LENGTH:210

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03817

SEQUENCE DESCRIPTION:

GATCTTTTAC CACTAAAAGA GCATTATTCT CATGTCATAA TGAGAATAAT AATTACATA 60  
CTTGGCATAA TAAATGCCTA AAAGACATTT TATTNTCTGA ATCTATTTTT TTCTTGCTAT 120  
AATGGGGATA TTGTAAATAA TGCATTGTGA TTAATGGTAT TTCTTAAAGC AATCTATGTA 180  
ACTGTAAATT AAACCAATCT ACAAACATAA 210

SEQ ID NO:3247

LENGTH:210

TYPE:nucleic acid

TOPOLOGY:linear

01101

CLONE:HUMGS03818

## SEQUENCE DESCRIPTION:

GATCAGAAGT GGCTAATTTA TTTNATTCT NATTATTTTA TCCAGAGGGT ACTTTTTTAA 60  
 TGGATATTTG TAAATCTNCC ACTTAACCAC TGAAAATAAT NTTNTTTTAA TCCCACCCTT 120  
 CCATCCATAC CTCTGCCTCC CCAAAAAGCT CCTATNAATT TNCTTATCCC CCTCATGTAG 180  
 CTAGTTGAAT GTGAATAAAT AACATGGAAA 210

SEQ ID NO:3248

LENGTH:206

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03819

## SEQUENCE DESCRIPTION:

GATCTCCATT CTTTGCCATG AGGGCCAACA CATGAGACCC CACCTCCCTC CCTGCCTGCC 60  
 AGCCCTAGAC TTGTTGGAGC ATAGAGCCCT TCCTCCCCAG GCCTAAGTAT GTGGAGCTCT 120  
 GCTTTGGCAC TGCCCCGCAG AGGCCACGCC TATTTATTCT GTTCTNTTG TTTTGTITTT 180  
 AACAACTATA CTTTGCACAC ATGAAA 206

SEQ ID NO:3249

LENGTH:209

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03820

## SEQUENCE DESCRIPTION:

GATCCCCAGA GTTGGTCCAA GGAGGGAGAG TGGGTCTCA ATACGGTACC AAAGATATAA 60  
 TCACCTAGGN TTACAAATAT TTNAGGACT CACGTAACT CACATTTATA CAGCAGAAAT 120  
 GCTATTTTGT ATGCTGTAA GTTTTCTAT CTGTGTACTT TTTTAAAGG GAAAGATTTT 180  
 AATATTAANC CTGGTGCTTC TCACTCAA 209

SEQ ID NO:3250

LENGTH:335

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03821

## SEQUENCE DESCRIPTION:

GATCTGTGTG GTCCCCGACG TAACATCTGG CGAGACCCTG CCCTCTGCTG TTACCTGAGT 60  
 CCTGGGGATG AACAGGTCAA CTGCTCAAC ATCAATTATC TGAGGAACGT GGCTCTAGTG 120  
 TCTGGAGACA CTGAGAACGC CAAGGGCCAG GGGGAGCNGG GCTCAACTGG AGGAACAAAT 180  
 ATCAGTCCA CCTCTGAGCC CAAGGAAGAN TGAGTCACCC CAGAGCCCTA GAGGGTCAGA 240  
 TGGGGGGAAC CCACCCTGCC CCACCCATCT GANCACTCAT TACACTAAAC AACTTTTTTG 300  
 GNAANTNTNA TNTATGATGN GNNGNGNGTG GGGAN 335

SEQ ID NO:3251

LENGTH:207

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03822

SEQUENCE DESCRIPTION:

GATCTAATTC TNCACCTCTG CTCCAAGGGC TGGGCTGTGG GTGGGATACT GGGATTTTGG 60  
GCCACTGGAT TTTCCCTAAA TTTGTCCCCC CTTTACTCTC CCTCTATTTT NCTCTCCTTA 120  
GACTCCCTCA GACCTGTAAC CAGCTTTGTG TCTTTTNCCT TNTNCTCTCT TTAAACCAT 180  
GCATTATAAC TTTGAAAGCA AAACAAA 207

SEQ ID NO:3252

LENGTH:201

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03823

SEQUENCE DESCRIPTION:

GATCTCATTT NAATGATTTA TAGGTAAATA CTAATCAGAC ATTATTAATA GCAAAACAGG 60  
AAAAAGGTAA ACTTCTTAAA TTTAGTTACC TATAAAAATT GTCAATNTTN ATTCTTTAAA 120  
AACACATGGA CTTACTATAA AAGCCTTTTT GTACTAGTGA AAAGAATCTT CAGCTATATA 180  
GAAATAAAGT TATACTTTAA A 201

SEQ ID NO:3253

LENGTH:201

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03824

SEQUENCE DESCRIPTION:

GATCCCTAAA AGACAAAAGA GTCTTGAAA GGACTGCTGG CTCGTCTTG AACGTTTCGCC 60  
CCATCACCAG TGTGAGTCCG TGGGGAAGTC TTCCTCAAGT GGGGTTTCAGT CTGTAATTTT 120  
CCTGTCTGTT CTTAGCNNG TTCTGAGTTA TTTTGGATT TNTTCTTTAG CCAAATAAAG 180  
GCAGTGTGGT TTTACCTGAA A 201

SEQ ID NO:3254

LENGTH:200

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03825

SEQUENCE DESCRIPTION:

GATCCTAATG GTGCTGCCCT ATTTATACCT GGGTCTGCAT TAAAAGGGAA AGCCCCCCT 60  
GTTGTAGATT TCATCTGCTT CCTCCTTAGG GNAGGCTGGG ATATGATGAG AGATTCCAGC 120  
CCAAGCCCGG CCCCCACCG CCAGGCCATA GGGCATANTT TGCATCTCAA ATCTGAGGAA 180  
TAAACTGATG ACCTGTGAAA 200

SEQ ID NO:3255

LENGTH:391

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03826

## SEQUENCE DESCRIPTION:

GATCAAGCAT TTGCGTTTGG ATGGCAATCG CATCTCAGAA ACCAGTCTTC CACCGGATAT 60  
 GTATGAATGT CTACGTGTTG CTAACGAAGT CACTCTTAAT TAATATCTGT ATCCTGGAAC 120  
 AATATTTTAT GGTATGTTT TTCTGTGTGT CAGTTTTCAT AGTATCCATA TTTTATTACT 180  
 GTTTATTACT TCCATGAATT TTAATAATCTG AGGGAAATGT TTTGTAAACA TTTATTTTTT 240  
 TTAAAGAAAA GATGAAAGGC AGGCCTATTT CATCACAAGA NCACACACAT ATACACGTT 300  
 AGACATCAAA CTCAATGCTT TATTTGTNAA TTAGTGGTT TTNTATTCT ACTGTCAAAT 360  
 GATGTGCAAA ACCTTTTNC CGGGTTGCAT N 391

SEQ ID NO:3256

LENGTH:194

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03827

## SEQUENCE DESCRIPTION:

GATCTTTAAT TTGNATGGTG ATGAATGTCT TAGTCATGAA GAGTTTCTAT GGGGTGTNAA 60  
 AAAACAGAAT GCATCGAGGT TNATGGGTAC CACAACATCA GAGTATACAA GAATACTGGA 120  
 AGTGTGTGAA GAAAGAAAGC ATTAAAGGAG TAAANGANGT CTGGAAACAN GCTGGAAANG 180  
 GTCTTTTNA ATNN 194

SEQ ID NO:3257

LENGTH:190

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03828

## SEQUENCE DESCRIPTION:

GATCTAGTAG GTTCTATTT TTCCTTCTC TTTACAATGC ACATAATACT TTCCTGTATT 60  
 TATATCATAA CGTGTATAGT GTAAAAATNG AATNACTTTT TTTGTGAATG AAAATCTAAA 120  
 ATCTTTGTAA CTTTTATAT CTGCTTTTGT TTCACCAAAG AAACCTAAAA TCCTTCTTTT 180  
 ACTACACAAA 190

SEQ ID NO:3258

LENGTH:190

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03829

## SEQUENCE DESCRIPTION:

GATCCCTTT TNTNCTGGAG CTTCCGTGCC TCCCCTGCCT CTCCCAGCC CTGTAATCC 60  
 TCCTCACAG GCCAGCCAGA TACCTGTNG GCCTNTGGGC CCATTTNTT CCCTGTCTGT 120  
 CCCCACCCA CAAGAACCAG GTTCTNTAA TAAATTCTCT CCCTTCTTA GCCAGGACTT 180  
 AGCCCGCAAA 190

SEQ ID NO:3259

LENGTH:189

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03830

SEQUENCE DESCRIPTION:

GATCTNAGAG CCTGCCCAAC AGCAGGGAAG CCAAGCACCC ATTCATCCCC CTGCCCCCAT 60  
CTAACTGCGT ANTGANAAGG GGAACAGTGC CATGTACCAC ACAGATGTTT CTGTCTCCTC 120  
GCATGGGCAT AGGGACCCAT CATTNATGAC TGATGAAACC ATGTAATAAA GCATCTCTGG 180  
GGAGGGAAA 189

SEQ ID NO:3260

LENGTH:188

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03831

SEQUENCE DESCRIPTION:

GATCCCCTTC CTATCAATCA CCTGATAGCA ACAGGGACAG CTGCCAATAC CCTGCTCTTT 60  
ACTCAATGGT ACCCAGGGAG GGAGCATGGG AAGAGGGTGA GCTGAGGGCT GGAGGAGGGC 120  
AACAGCCACT GGGTGAGCTG TTCACGGTCT TATACTATTG TTTGTNATTA AAAGTGCTTC 180  
AACCCAAA 188

SEQ ID NO:3261

LENGTH:184

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03832

SEQUENCE DESCRIPTION:

GATCAACAAG GCCACGCCCT ACAACTACCC AGTGCCCGTC CGTGATGATG GGAACATGCC 60  
CGACGTGCC AGCCACCCCC AGGACCCTCA GGGCCCCAGC CTGGAGTGGC TGAAGAAACT 120  
GTGAGCACCT CCACTGACAG AGGCGGCCCC TCCCACGGNT CCCAATAAAA ATGTGAAAAC 180  
CAAA 184

SEQ ID NO:3262

LENGTH:184

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03833

SEQUENCE DESCRIPTION:

GATCCACCAA TGTTCAAAT AGGACTATAA CTTATTCAAA GGCCAATNAT ACTTCGCATA 60  
ATTCAATTTT AATATTATTC ACATTTTCATG TCACAAATTT AGTAAGTTAC ATGTGTTATG 120  
TGATGTTTTG TTTTGATAGA TTATATCTTA CTCCTAAATA AAANGTCAAG ATTTTGTAG 180  
CAAA 184

SEQ ID NO:3263

LENGTH:181

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03835

SEQUENCE DESCRIPTION:

GATCTCTCTG TGTGGAATGC CTTGGTGAGA GAGATGCTTA TAATNACTAT NATNATTCT 60  
 AACCAAGCTT CTATNAATNT AATTCTAAT AATACACTAT CTTGATTGTA CTCTCCAGAA 120  
 AATTTTCTG TCAGTGAAAA TAAAAGAAAA ATTAAAGTAA AGCTAAGGAA CTGTCTATAA 180  
 A 181

SEQ ID NO:3264

LENGTH:180

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03836

SEQUENCE DESCRIPTION:

GATCCCTGGA CCATCTGCAT CCAGAGGACC GTCCGTAACG GCCGGGGGTC CAGGCGGACC 60  
 TTGTGGTGAC CCGGCTCGGG CNTNTCCTCG GTTCNTTGC CTCACCCGCG GAGAGCGCTG 120  
 AACCTGGACA AGCAGCGGCT GGNAAGNACA GGTCCAATAA ACGCCCTCTG CGCCAGAAA 180

SEQ ID NO:3265

LENGTH:227

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03837

SEQUENCE DESCRIPTION:

GATCTAGTTC AGAAGGAAGC AAAATCCCTT AATCTATGTG CACCGTTGGG ACCAATGCCT 60  
 TAATTAAAGA ATTTAAAAA GTTGTAATAG AGAATATTTT TGGCATTCTT CTAATGTTGT 120  
 GTGTTTNTT TTNGTGTGN CTGGAGGGAG GGGATTAAAT TTNAATTNA AAATGTTTAG 180  
 GAAATTTNTN CAAGGAANCT TTTTAATAAN GTATATNGAA AGNTAAA 227

SEQ ID NO:3266

LENGTH:171

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03838

SEQUENCE DESCRIPTION:

GATCACTTCT CCTTGGCTTC CTTCTTTTCT GTGCTTGCAT CAGTGTGGAC TCCTAGAACG 60  
 TCGGACCTGC CTCAAGAAAA TGCAGTTTTC AAAACAGAC TCAGCATTCA GCCTCCAATG 120  
 AATAAGACAT CTTCCAAGCA TATAACAAT TGCTTTGGTT TCCTTTTGAA A 171

SEQ ID NO:3267

LENGTH:338

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03839

SEQUENCE DESCRIPTION:

GATCACTTTA TTTGCTAGGG AGGGAAGTCC TAGGGTGGTT TCAGTTTCTC CCAGACATAC 60  
 CTAAATTTTA ACATCAATCC TTTTAAAGAA AATCTGTATT TCAAAGAATC TTTCTCTGCA 120  
 GTAAATCTCG CAGGGGAATT TGCCTATTA CACTTGAAAG TTGTTATTGT TAACCTTTTC 180  
 GGCAGCTTTT AATAGGAAAAG TTAACGTTT TAAACATGGT AGTACTGGAA ATTTNCAAG 240  
 ACTTTTACCT AGCACTTAAN TATGTATAAN TGTACATAAN GACAANCTAG TAAGCNTGGC 300  
 CTGGGGANAT GGTCAAGCCT TGTNTTGTGT TTTTGGCN 338

SEQ ID NO:3268

LENGTH:170

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03840

SEQUENCE DESCRIPTION:

GATCATAGGA GAAAACCATTCANATGACA AGAGCACCTC AAAGGCAGCA GCCTCAAGGA 60  
 GCAGCCATGG CCCAGACTT GTCGCACGGA TGCAGAAAAC TTAATGGAGG AGGCTGAGGT 120  
 CAGAATGGGA AGAGTTTTTA AAAAATAAAA AGGGGAGCTA ATATGTGAAA 170

SEQ ID NO:3269

LENGTH:168

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03841

SEQUENCE DESCRIPTION:

GATCAAGGGC AAAAAGTGGT CATTAAAGTNA TCTAANATTA AATNATTTAG CCACTAAGTA 60  
 ATTTNTTTAC TCTNACTTTA AACTCACCAA AGAAGATTCT TTTAAAGAAA TTATGAAAAA 120  
 TGTACAATTT AACATTTTAA ATAANTAGTG ACAGANGTTG TTTATAAA 168

SEQ ID NO:3270

LENGTH:167

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03842

SEQUENCE DESCRIPTION:

GATCCTCCTG CCCAGCATT CCAAAGTGCT GGGATTACAG GTGTGAGCNA CTGCCTGGCC 60  
 TGGCCGTAGG TTTGTAACTG TTTCATAGAA GAGCCCTGGA GAAGACAGTA GAATNAGCCT 120  
 ATCTAGTTTA AAAAATAAAG AAGCACGTTG ATTCACCAC CGCCAAA 167

SEQ ID NO:3271

LENGTH:167

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03843

SEQUENCE DESCRIPTION:

GATCAGCTTT GTTTTCCCA GAGTTCATGC AAATAGAATC TGGCTTCTNT AAGTNAGCAT 60  
 CATGGACTTG GTTNAAATTC GCCCGTNTTG CTGAGTGTAT CTTAGCTTG TCCCTTTTAA 120



CTGACGAGTA GTATTCCACA GTNTGGATGC ACTGTATTNN NTTTATN

167

SEQ ID NO:3272

LENGTH:166

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03844

SEQUENCE DESCRIPTION:

GATCAGAGCA TTGTGCAATA CAGTTTCATT AACTCCTTCC CCCGCTCCCC CAAAAATTTG 60  
AATTTTTTTT TCAACACTCT TACACCTGTT ATGGAAAATG TCAACCTTTG TAAGAAAACC 120  
ANANTAAAAN TTGAAAANTA AAAACCNTAA ACATTGTCAC CAGAAA 166

SEQ ID NO:3273

LENGTH:165

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03845

SEQUENCE DESCRIPTION:

GATCTNTTTT TTTCCCTTCT TGTATCATCC CTTTGGGTTT TTCGGTTTGC TTGGGTTTTT 60  
AATTTTNCCT TGTTTTNCT ATAAATCCTG TTTAATCTT ATAAGGGAAA ATNCATTTTN 120  
TTCAACTGTN CTAGTTAATA ATGAGAACTC AATTNCTGGA AATNN 165

SEQ ID NO:3274

LENGTH:163

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03846

SEQUENCE DESCRIPTION:

GATCTCAGGA ATNACATTTT CCAACAGACC AAAAAATGTT TTCATGTAGC AGCAATGCAG 60  
ATTTGGTGAA TATTTAATAT ATATTTAAGT ATGTATTCA CTTTATNACT GACAATNAAA 120  
AAATATTGTT TGGCCAAATA GTAAACACCC TTTTGAAACC AAA 163

SEQ ID NO:3275

LENGTH:163

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03847

SEQUENCE DESCRIPTION:

GATCCCTTNG TTGCTTAAT AAATTATAAA ATAATGGCTT GGAAAAGCAG GCTAGTCTAA 60  
CCATGGTGCT ATNATNAGGC TTGCTTGTTA CACACACAGG TCTAAGCCTA GTATGTCAAT 120  
AAAGCAAATA CTTACTGTTT TGTTTCTATT AATGATTCCC AAA 163

SEQ ID NO:3276

LENGTH:164

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03848

SEQUENCE DESCRIPTION:

GATCTGTTCT TGGTATTNN TTTTGTITG TTTTGGTTTT TAAATGTAAT CACCCATTGG 60  
 TCAGGCCAG GACTGGTCAC CATGAGCTCT GCTAGCCACG GCCCAACGA TGCTTCCGGC 120  
 TCTCATGGAT TCCACAGCAA ATAAACTGT GCTGACAACA GAAA 164

SEQ ID NO:3277

LENGTH:162

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03849

SEQUENCE DESCRIPTION:

GATCTGGGGT CCCTAAGTCC CTCTCTTTAA AGAACTTCTG CGGGTCAGAC TCTGAAGCCG 60  
 AGTTGCTGTG GGCCTGCCCG GAAGCAGAGC GCCCACTCG CTGCTTAAGC TCCCCAGCT 120  
 CTTTCCAGAA AACATTAAAC TCAGAATTGT GTTTCAGCA AA 162

SEQ ID NO:3278

LENGTH:162

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03850

SEQUENCE DESCRIPTION:

GATCCTAGGA ACTCCTATNT TCAGAAAAGA ATTTNTTCC TACTATATAA TTACAGTATT 60  
 TAGCTGTCAA TTTAAGATG AATTTGGTAG AGCCTTATAG TAAAGNATGT ATCTTGGTCA 120  
 CACACAAAGC TTGGAAAAAG TAAAGATGT CTAAACCATA AA 162

SEQ ID NO:3279

LENGTH:160

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03851

SEQUENCE DESCRIPTION:

GATCAAGAAG TAGCCGAGGT TGATAAAAC ATAGAACTTT TGA AAAAGAA GGATGAAGAA 60  
 CTCAGTTCTG CTCTGGAAAA AATGGAAAT CAGTCTGAAA ACAATGATAT CGATGAAGTT 120  
 ATCATTCCA CAGCTGCTCA ATAAAGTACA AGAGCTTAAA 160

SEQ ID NO:3280

LENGTH:177

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03852

SEQUENCE DESCRIPTION:

GATCGTGGGT CAGGGACACC GAGAGAGTGA GGTCACCTCC ACTTCAAACC TTCAGTGAGG 60  
 GGGTGGGATG GAGAGAATGC TGAATCTTTT TTTNACGGG ATGGGGTTTT CNTCTTTGTA 120

ATTATNNCTT TAGTTTAATT AACCTTTTGG TTGTTTGTNC AATATTATAT ATNNNAN 177

SEQ ID NO:3281

LENGTH:232

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03853

SEQUENCE DESCRIPTION:

GATCAGGACT ATAATATTGT ACAGTTATTA TAGGGCTTTT GGGGAAGGGG AGGATAGCGA 60  
 GAAGATGCTC TGGGGGTTTT GTTTTGCTT TTCCTTCAGG GTTTATTTT TGACTGTTTT 120  
 GTTTCTNGT NGGCCATTTT TGTATTGCTG GCATCTGTGC TAAGCTTTAC AGTGGCAAAA 180  
 ATAATGACAT GTAGCAAAGA TTTTCAAACA AAATATTTT NCCTTTTGTA AA 232

SEQ ID NO:3282

LENGTH:158

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03854

SEQUENCE DESCRIPTION:

GATCGATGGT GGCCTTTTCT CCTGTGCCCA CCCGTCTTCA ATCTCTGTTC TGCTCCCAGA 60  
 TGCCTTCTAG ATTCAGTGC TTTTGATTCT TGATTTTCAA GCTTTCAAAT CCTCCCTACT 120  
 TCCAAGAAAA ATAATTAATA AAAAACTTC ATTCTAAA 158

SEQ ID NO:3283

LENGTH:158

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03855

SEQUENCE DESCRIPTION:

GATCTCATCA CAAGATGACC AAAAGAGTTT GAACTGTGTG TGCTATTAG AAGATTTAAC 60  
 TTTNATGTAT CTATAGATAC CACAGCTGTT GCTTCTAATA AATTACCTA CCTTTNAACT 120  
 GAAAGTTTAA TAAAGCCAAA TCAATTGAA ATACCAAA 158

SEQ ID NO:3284

LENGTH:390

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03856

SEQUENCE DESCRIPTION:

GATCTGCCTC ACGTGCCTG TGGTGGCCGT GTGCTACGGC TCCTTCTACA ATCTCCTCAC 60  
 CCGAACCTTC CACATCGAGG AGCCCCGCAC AGGTGGCCTG GCCAAGCGGC TGGCCAACCT 120  
 TATCCGGCGC GCCCGAGGTG TCCCCCACT CTNATTCTNG CCCTTTCCAG CAGCTGCAGC 180  
 TGCCGTTTCT NTCTGGGGAG GGGAGCCCAA GGGCTGTTTC TGCCACTTGC TCTCCTCAGA 240  
 GTTGGCTTTT GAACCAAAGT GCCCTGGACC AGGTCAGGGC CTACAGCTGT GTTGTCAGT 300  
 ACAGGAGCCA CGAGCCAAAT GTGGCATTG AATTGAATT AACTTTAGAA ATTCATTGTC 360

TCAACTTGTT AGTGGCCACC TCTTATATTN

390

SEQ ID NO:3285

LENGTH:156

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03857

SEQUENCE DESCRIPTION:

GATCTCAACA CCTATGCCTC CACGTAAATT ATTTTTTCA GCCTTATTC CCTCAAATT 60  
GTAGAGTCCT AATCTTCTTC TATCTTGTGG TGTGAGACCT TGGATAAGTC TCCCTTCCAC 120  
CTTTCCTAT TACTTAAAT GGTGAATTG CATAAA 156

SEQ ID NO:3286

LENGTH:155

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03859

SEQUENCE DESCRIPTION:

GATCAGGTGA TTTGTAAAT TGTATTTATC TGTACATGTA TGGGCTTTTA ATTCCACCA 60  
AGAAAGAGAG AATNATCTT TTTAGTTAAA ACCAAATTC ACTGTTCAA NTATCTTCCA 120  
ACTTATTTAT TGGGTTGTCA CTCAATTGCC CTGTN 155

SEQ ID NO:3287

LENGTH:137

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03860

SEQUENCE DESCRIPTION:

GATCTTGCAA CTCATTTCG GAAGACACCG AGGAAGAGGA GGAAGATGAA GACCAGGACT 60  
ACAGCTTCC TATATCTCT ATTCTAGAGT GGTAACCTCT CTNTAAGTNT TCAGTGTTGA 120  
CATAGCCTTT GTGCAA 137

SEQ ID NO:3288

LENGTH:152

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03861

SEQUENCE DESCRIPTION:

GATCAGTGGG CACAGTTCTT CAGCTACATT GAGACCCTGA AATAACAAT NATATTCTNA 60  
CTCGACATCT TGTCCTCAAT CCTTCAAAA ATATTGATGG TGATTGTGC TACCATTAC 120  
TCGTTTATTT AATAAGACA TTCAATCCCA AA 152

SEQ ID NO:3289

LENGTH:152

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03862

SEQUENCE DESCRIPTION:

GATCAGNATT GTACGTATTC AAGGTGTAAT ATNTGATAAT TTGTCGTACA CGTACATTGT 60  
GCAATAACAG TCACAATNAA TTCCTCAGCG CACCCATCAC CACGAATACG ATACATTAGA 120  
TATTCTGAAC TTGCTCATCT TAGGACTTCA AA 152

SEQ ID NO:3290

LENGTH:153

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03863

SEQUENCE DESCRIPTION:

GATCATAATA GTGACCAAAA TATACATGCA GACTTGTTTT TTATTATTGT TGTTTAAGCA 60  
TAATTTAAGA AAAAAAATTT TTACCTGGTG AACTTGCTAT CTGCTCTGTT TCTAGTTAAA 120  
ANATAATANA TTTTATCTNC CCTGTGCTGT AAA 153

SEQ ID NO:3291

LENGTH:144

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03864

SEQUENCE DESCRIPTION:

GATCTCTTTT CTTTTTACAG GAACAATTGG CTTCTTTGCA TGCTTTTGGT TTGTNACCAA 60  
AATATACAGT GTGGTGAAGG TTGACTGAAG AAGTCCAGTG TGTCCAGTTA AAACAGAAAT 120  
AAATTAACT CTTTCATCAAC AAAA 144

SEQ ID NO:3292

LENGTH:163

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03865

SEQUENCE DESCRIPTION:

GATCATGGTG AACTTACCAA AGCAAACAAT GCCTGTAAGA TGGTCCTGCA GCAGCCAACC 60  
AGTGAAGTCT TTTGGTGACA TCCTGTTCTT GTTGATAAC TTTATATTCC TATAAATCCA 120  
TTAAGGCCCC AATAAAGTTT GTCTCTAAGC GCTGTGTTAG AAA 163

SEQ ID NO:3293

LENGTH:149

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03866

SEQUENCE DESCRIPTION:

GATCCAAAAT TAGAGCTCAT CAGANTTGTC ATTGAAAGTG TTAACAAAAG TAATATCAAA 60  
TGACATTGA AAAATATCCT TGTAATAATGA CTATATTAAT AGGTATAAGG NTTTTCTTA 120

TTAATCTAAT AAAATNCCTT AATAGGAAA

149

SEQ ID NO:3294

LENGTH:157

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03867

SEQUENCE DESCRIPTION:

GATCAGGACA CTTAGCAAAAT GTAAAAATAA AATCTAACTC TCATTGACA AGCAGAGAAA 60  
 GAAAAGTTAA ATACCAGATA AGCTTTTGAT TTTTGTATTG TTTGCATCCC CTTGCCCTCA 120  
 ATAANTAAAG TTCTTTTTTA GTTCCAAATT TNAGAAA 157

SEQ ID NO:3295

LENGTH:148

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03868

SEQUENCE DESCRIPTION:

GATCCGNTAG GAGTAGTAAA TGNGAGACAC AATNGCTTGA TTATACCTCN TATNTGGTTT 60  
 AGCTTCAGTA TTAAACAAG GAAATAAACT TGAAAATTAT TTGTCATCAT AAAAATGAAA 120  
 CAAANTAAAA TATTTATTGC CAGGNAAA 148

SEQ ID NO:3296

LENGTH:332

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03869

SEQUENCE DESCRIPTION:

GATCTCAGAG GCTCAGAGAC TGCAAGCTGC TTGCCCAAGT CACACAGCTA GTGAAGNCA 60  
 GAGCAGTTTC ATCTGGTTGT NACTCTAAGC TCAGTGCTCT CTCCACTACC CCACACCAGC 120  
 CTTGGTGCCA CCAAAAGTGC TCCCCAAAAG GAAGGAGAAT GGGATTTTNN TTTTGAGGCA 180  
 TGCACATCTG GAATTAAGGT CAAACTAATT CTCACATCCC TCTAAAAGTA AACCTACTGG 240  
 TTAGGAGCAG CAGTGTCTC ACAGTGTGGG GTCAGCCGTC CTNCTTNATN NNNGGCCAAT 300  
 GGNTATTGAC ACGTGTNCNN NGTTTGGGCA GN 332

SEQ ID NO:3297

LENGTH:147

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03870

SEQUENCE DESCRIPTION:

GATCTNCTGT CCTCCTTTCA CTACATACCA ACAACCCTCT GGCATTAAAC TTCCAGTGAT 60  
 AGTGCTATNA ACTTTGTGTC CTCAGGTCAA CAAGGGACCT CAGTAATTNG TTCTNTACAT 120  
 AAGTATATAT ATGGGTATTA NTNNGTN 147

SEQ ID NO:3298

LENGTH:355

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03871

SEQUENCE DESCRIPTION:

GATCGCCCTC TACATGGCTT CGCAGCCCAA AAACAAATNA GTTAGGCTGC AGAGGACTGG 60  
 TTTGTTTTTT GGCATAAACC CTTTGAAGTT CCTTTTTCAT TGTTAAATTA AAATTTTTTT 120  
 NTTNACTTGG ATGGCTTAAC ATTTTNNCAA GAAAANTNGG AAGNTATGAA GATGNTGTTT 180  
 TGGTTTGTTC ATGAAANGCA TATGGCTTGN CAGAGCTCAT TCGACAGTTA AGGCCATTGT 240  
 TTAAAGAANC GGTGCTTTGC TCTGTGTTG TNCTCCTGAT TTCCCTGGAG GTTCTGGATG 300  
 AGGGCTGANC ACAGGCTTNG TTANTGTNCA GTCTGTGCTG GGGGNCCTCA GGGGN 355

SEQ ID NO:3299

LENGTH:147

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03872

SEQUENCE DESCRIPTION:

GATCACCAGG GTCAGTTTNT TTAATAATGG TTTCCAACGT GCCTAATACA TTAAGTAAGA 60  
 NTGGNTGATA ACATGACCAG ACAGACATAA AGACCCTGTT GGGAAATNACA TTGAACCTCT 120  
 AAAGTCAAGA TTTNTTACAC AANTNTN 147

SEQ ID NO:3300

LENGTH:147

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03873

SEQUENCE DESCRIPTION:

GATCCGCTAC TAAAGTAAA AATAACCGGT TTGTAAAACA TTAAGAGAAA AANTAGGATA 60  
 TTTAATACAT GTGGTGAGTG GAGANCAGGG TAACTTTAAN TNAAAGTTTA AGGCAAATTG 120  
 TAAGCNCCAC AAGANATATC ANATTTN 147

SEQ ID NO:3301

LENGTH:147

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03874

SEQUENCE DESCRIPTION:

GATCTAAAAA AATTAAAAAG AAATATGAAT GAAAGNAAAA AAAATGCNAA AATNAGCAGT 60  
 TTCCTGGAGG AGCAGTTCCA GCAGGGCAAG CTTNTTGCTT GCNTCGTTTC AAGGCCGGGA 120  
 CANTTTGGCC GAGCAGATGG CTATNTN 147

SEQ ID NO:3302

LENGTH:147

2153480

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03875

SEQUENCE DESCRIPTION:

GATCATNTTA TTTTACAATC ATTTATAATG AATNAATGTT NCAGTTAGCT TTAAAAGGTA 60  
TACGGTGCTA ATNAGTAAAA TATTGAAGGC AATATTTTAC TGCTAGCTTG CAAAGTTATG 120  
AGAGTTTAAA AAATAAAATA TATGAAA 147

SEQ ID NO:3303

LENGTH:147

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03876

SEQUENCE DESCRIPTION:

GATCTAGGGT CCTGGGTNTC TTGCATTAT ATGTCAGAAA AGGGGCGATA TGCTGCTGAG 60  
GGGTGAGTGC ATATAANTNT GGCCCTGAGG ACCAGGGCTG GCAGATNTTG TCTACCTGCT 120  
GAAGAATAAA ANATTCTTT TGGTAAA 147

SEQ ID NO:3304

LENGTH:150

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03877

SEQUENCE DESCRIPTION:

GATCTNACCC CCAGCATGAT TGTATTTCTT TCCCCTCCAG TCAAACCGTA ATACAGTTTC 60  
CAGAAAATTC GACAGTCTGC AATGCCAAAA GGGTAAAAAT CTGTATTTCA CAGTTGTATA 120  
GAATAAAGGC TTTAGTTAAA ATATTTCAAA 150

SEQ ID NO:3305

LENGTH:146

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03878

SEQUENCE DESCRIPTION:

GATCTAAAAA TAACTGTAAT TATTTAAATG ACTAANAGGA AAGTACATTT TTAAAAATNC 60  
TGAAAATTGC CTTNNTGTGT TTATNCAAAC TGAAAAGCTG AGACCAAGAG CAAGGAAGGT 120  
AAAANGTTAA CAGGCAAACA TTTNCN 146

SEQ ID NO:3306

LENGTH:143

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03879

SEQUENCE DESCRIPTION:

GATCCTCACC AACCTAAGCA AGAGGAAGTG CCCCTCTCAA CCTGTGCGGG NTGCTGCGTC 60

01115



CCAGGACTGA GACGCAGGCC AGCCCCGGCC CCTAGCCCTC AGGCCTTCTT TTTATCCAA 120  
ATAAATATTT CTTAATAAGG AAA 143

SEQ ID NO:3307

LENGTH:143

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03880

SEQUENCE DESCRIPTION:

GATCAACAAG AGCACTGTAC TCCTGGCAAT NATTACATAT GTNAGAACAT GGATTTTGCA 60  
CTGTAGACAA CATTAAACAC CAGTCTATGG GGTACTGCAT TGCTTTTAT AAAGTTCAAA 120  
ATAAAGATTT ATTTTCAAAC AAA 143

SEQ ID NO:3308

LENGTH:142

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03881

SEQUENCE DESCRIPTION:

GATCCCTTTA CTGGAGCCCA GTATGTGCTG TGTGAGTTAG AAGTCATTCT TGCTGAGAAG 60  
GTGAATAGGT AGGGATTTC CTTGTTTGT AAGTCTACAA TTTGCCAAGA GTAAATAACA 120  
CTGGACCAGC TGTAAGTA AA 142

SEQ ID NO:3309

LENGTH:142

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03882

SEQUENCE DESCRIPTION:

GATCTGCACA TTAAATCGTG GCTGTTTCTG TATAGCCTAT ACTGCATTAG CCNAAGANAT 60  
TGTTGCTTG TAACTTTTG CACTATTGTT TTGGCTGGAT TTGTATTACA CACAGTTTAA 120  
AAAAAACA TTCCACACTA AA 142

SEQ ID NO:3310

LENGTH:141

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03883

SEQUENCE DESCRIPTION:

GATCCCTAAG CCCCCAGCT GTAAATAGGC TGTGGCCAGT GCCTGGTCAT NAGAAGAGNG 60  
AGGAGGAGCC CAGGCGTCTG TTTATGTATT TATTTATTA TTTATTATAC CTATTAATAA 120  
AAAAGGTGCT CAGCCTCAA A 141

SEQ ID NO:3311

LENGTH:139

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03884

SEQUENCE DESCRIPTION:

GATCTTGGCC TTCGCAGTGC CCAGTGATGG CATTACTCTG CACTATAGCC ATTNCCCCA 60  
ACTTAAGTTT AGAAATNACA AGTTTCAGTA ATAGCTGAAC CTGTTCAAAA TGTTAATAAA 120  
GGTTTCGTTG CATGGTAAA 139

SEQ ID NO:3312

LENGTH:138

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03885

SEQUENCE DESCRIPTION:

GATCTGGAAG ACAAGTAACA TCTTCCTTTT NTTGGTGCTC GCCTGCCGTG CTCTAGGTGC 60  
TTTAGAGAT GCTGGTCTGT GTGCTAGGGA AGCGATGAAC CATACTGTGA GTCTATTAAA 120  
CATAACTCAA CCTGGAAA 138

SEQ ID NO:3313

LENGTH:138

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03886

SEQUENCE DESCRIPTION:

GATCTATCTC TGTGTCCAAG TCTCCTCTTT TTATAAGGAA ACCAGTCATA ATGGACCCAC 60  
CTGAATNACC TCATTTTAAC TTGATTACCT CTGTAAAAAA TGTATTTCCA AATAAAGTGA 120  
CCTTATGAGG TATTGAAA 138

SEQ ID NO:3314

LENGTH:136

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03887

SEQUENCE DESCRIPTION:

GATCAACAAA TCTCCTAGGC CTNTNACCAC ATACATTTAC ACCNACTACC NCAACTATCC 60  
ATAAATCTAA GTATAGCCAT TCCACTATNA GCTGGAGCCG TAATTACAGG CTTCCGACAC 120  
AAACTAAAAA GCTAAA 136

SEQ ID NO:3315

LENGTH:139

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03888

SEQUENCE DESCRIPTION:

GATCCACCT TCAACACCTT ACAAGTAAAG CCAATGAAGN ACAGTTGAAA CATGCAAAAT 60

ATGGNGCTTT TCATGTAATT ACTCTTTTAC TGTTTACCAT TCACTATAAT TCACAATTAA 120  
AATTGTGTGN CTANACAAA 139

SEQ ID NO:3316

LENGTH:133

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03889

SEQUENCE DESCRIPTION:

GATCTGTGTA GTTAATGTAT TTATTAATGC TTGACTTTTA AAATCCTGGG CATAAATAGT 60  
GCAGAGCCTC GTATGTTTGT CAGTTCATGC CGAGATGAAA TAAATCACGC AGAAAGTGCC 120  
AGTCCTCCTG AAA 133

SEQ ID NO:3317

LENGTH:132

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03890

SEQUENCE DESCRIPTION:

GATCTGTGGA GTGTGTGTTT CAAAGAGAGA ACTACAGAAA TNTTAAAGCA GGAAAACCTG 60  
AATGTNATGT GCACATTTTC ATCCACATG GACAATGTAT GTGTTTAAAT AAATGGAATT 120  
TTCAGATTCA AA 132

SEQ ID NO:3318

LENGTH:132

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03891

SEQUENCE DESCRIPTION:

GATCAAAATGT GGGCCCGTTT TTGGCCGCCG CCGCCCTGCC CCGTCCCTNC GGCCACCACC 60  
TAATTANTTG CCGTGCTTCC TGCTGCTGTA ACTGCTTTNT TACCTTTCCA ATAAAGANTT 120  
TCTTGGTITA AA 132

SEQ ID NO:3319

LENGTH:132

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03892

SEQUENCE DESCRIPTION:

GATCATTATT ATTGTAATAG TCTCATGTTT AAATGGGATT ATATAATGAN AACAGTTTAA 60  
AGAAAATNAT AATCTTATAT NTCAAATGTG GATGCATATA ACCTGTNAGT GAAAAANCAC 120  
TGANTGATTT AN 132

SEQ ID NO:3320

LENGTH:131

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03893

SEQUENCE DESCRIPTION:

GATCATATTG CTGTAAGTTC TTTAAGTAG TTGATGTGGA AAACATTTTA AAGTGAATTT 60  
NTCAAAATNC TGGTTTTGTG TTTTATCCAA CTTTGTGCA TATATATAAA GTATGTCATG 120  
GCATGGTTAA A 131

SEQ ID NO:3321

LENGTH:131

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03894

SEQUENCE DESCRIPTION:

GATCCTCAGT GTAGTTCTGA AACTAAGACT ATAGATATTT NNTTCTTTT AATTCTCTT 60  
TATACTAAAG AATCCAGAGT TGCTACAATA AAATAAGGGG AATAATAAAC TTGAGAGTGA 120  
ATAACCATAA A 131

SEQ ID NO:3322

LENGTH:131

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03895

SEQUENCE DESCRIPTION:

GATCTTAGAG TTGCACAGC TTAATAAAT GGAAATATTG GAATCTGAAT CCAAAACAGC 60  
CTGACTCAA ACAATGTNCT TNCCATTATG CAAGGGAAAA AAAAAANGGT TGGGTNTCAG 120  
NGNGAGGGTA N 131

SEQ ID NO:3323

LENGTH:433

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03896

SEQUENCE DESCRIPTION:

GATCATAGTC TTAGGAGTTC ATTTAAACCA TAGGAACTTT TCACTTATCT CATGTTAGCT 60  
GTACCAAGTCA GTGATTAAGT AGAACTACAA GTTGATATAGG CTTTATTGTT TATTGCTGGT 120  
TTATGACCTT AATAAAGTGT AATTNTGTAT TACCAGCAGG GTGTTTTTAA CTGTGACTAT 180  
TGTATAAAAC CAAATCTTGA TATCCAGAAG CACATGANGT TTGCAACTTT CCACCCTGCC 240  
CATTTTTGTA AAAGTGCAGT CATCTGGAC CTTTTAAAC ACAATTTTA AACTCAACCA 300  
AGCTGTGATA AGTGAATGG TTAAGTTTAA TACTGTGGGT ATGTTTTTGN NTTACAGCAG 360  
GTTAATGCTT TCTTTTTCCA GGTGCNCCTT TGAGGATTNA GGGAAAATTA NATAACTCTT 420  
TGTACAGTTC AAA 433

SEQ ID NO:3324

LENGTH:129

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03897

SEQUENCE DESCRIPTION:

GATCCACCCA CCTCGGCCTC CCAAAGTGCT GGGATTATAG GTGNNAGCCA CCGCGCCGGG 60  
CCGGTTGCTG GCATCTTAAT GTTCTGTAGG TGGAATATTT CCAATAAACA CAAGGTGCCG 120  
TAATTGAAA 129

SEQ ID NO:3325

LENGTH:129

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03898

SEQUENCE DESCRIPTION:

GATCTGGTAA ACTTNNAATC AATTAAATTA ATGCANCAAT AGATTATNAA TATTAAGTGA 60  
CCATTAAAGT TTTTNAATAA GTTTTTTACA AAGAAAAGTT AAACATTAAA AAGAATTACA 120  
GCTTTCAAA 129

SEQ ID NO:3326

LENGTH:128

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03899

SEQUENCE DESCRIPTION:

GATCTGGAAA TTTTTAATC AGTTAAATTG TGCAGCAATA GATTTTAAAC TTAACTGAC 60  
CATTAAAGTT TTTNAATAAG TTTTTTACAA AGAAAAGTTA AACATTAAAA AGAATTACAG 120  
CTTTCAAA 128

SEQ ID NO:3327

LENGTH:127

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03900

SEQUENCE DESCRIPTION:

GATCCTGTAG TGCCTCTATA GAAGTACCCA CAGAAAGTAA AGTATCACAT TTATAAATAC 60  
CAAAGATGTA ACAATTTTAA AATTTTNTAG ATTACTCCAA TAAAGTGTTT TAAGTTTTC 120  
TATGAAA 127

SEQ ID NO:3328

LENGTH:131

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03901

SEQUENCE DESCRIPTION:

GATCCATCGC GATACTATGT GTGCATTATT TGAAAGTTAT TGGAAATTTT ATTCAAACCG 60

TGGAACAAAT GTATGTNATT TTTTATACT TCTTAATTTA AATAAAATAT TTAATGCACT 120  
ATTAATAA A 131

SEQ ID NO:3329

LENGTH:123

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03902

SEQUENCE DESCRIPTION:

GATCAGCCCT TTGTACAGAA AAATGTGTCT ATAAAAATTA TGTGTTATTT AATTCTGATA 60  
CTTTTGGCT TGTAATAGC TTCTTGAAC TTTTACAATA AAAATGTTTT AGAACTGTT 120  
AAA 123

SEQ ID NO:3330

LENGTH:123

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03903

SEQUENCE DESCRIPTION:

GATCATGACC GGAACATGGN CTGGGTTTCC ACCCAGCTCC AGGCCACATG CAATGTCCAC 60  
AAGTNTGCCT TCAATNACTG GTTCAGTGA CACCTCAACT TCCAGATTGA GCACCATCTN 120  
NNN 123

SEQ ID NO:3331

LENGTH:205

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03904

SEQUENCE DESCRIPTION:

GATCGATTCA ATGCCCGATG CTTCTGTTTC ATTCCCGACC CTTTCTACTA TGCATTTCCT 60  
TTTTATCAGG TGTATAAAGT TAAATACTGT GTATTATCA CTAAAAAGTA CATGAACTTA 120  
AGNGNAACT AAGCCTTTCG TGTTTTCCA NAGGNCNGCN NGGCTTCTNT GTACAGTTGG 180  
AATAACAGA CAGCAAAATG GTAAA 205

SEQ ID NO:3332

LENGTH:122

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03905

SEQUENCE DESCRIPTION:

GATCCTCAGG CGGCCCCAC CAGGGCACAC CCTACTGTCC TTGTGCCTCA CGCCCCCTCC 60  
TCATCCTGCA CCCCTTCCAT CCCACCTCC CTTCAATAA ACAGCTGGGA TGGATACTGA 120  
AA 122

SEQ ID NO:3333

LENGTH:120

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03906

SEQUENCE DESCRIPTION:

GATCTGATTT TTTCCCCCTT TACCTAGCTG TGCCCCCTCT GGTTATNTAT TTCCTTAGTG 60  
CCAGGAGGGC ACAGCAGGGG AGCCCTGATT TTAAATAAAT CCGGAATTGT ATTTATTAAA 120

SEQ ID NO:3334

LENGTH:119

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03907

SEQUENCE DESCRIPTION:

GATCACCAGT GCATCCTCA TCACAGCATG TGCAATATGC CAAGATTACC CTCGGTCATT 60  
CCTGTCAACA AGGGGTCAAT GTCATAAATG TCACAATAAA ACAATCTCTT CTTTTTAAA 119

SEQ ID NO:3335

LENGTH:119

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03908

SEQUENCE DESCRIPTION:

GATCCATGAG GAAAAGATGC TCTCCACCT AAGGCCAGGA ATCTGAGAGC AGGACTGGCT 60  
GAGCTCCAG GGCAAGGGGT TCACTAATGC TTATCAATAA AGAATATTGA GCCTGGAAA 119

SEQ ID NO:3336

LENGTH:273

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03909

SEQUENCE DESCRIPTION:

GATCAGATTG CATGTNACTC TNAAGCTGAC GAACTTCCAT GGCCCTCATT AATGACACTT 60  
GTCCCCAAAT CCGAACCTCC TCTGTNAAGC ATTCGAGACA GAACCTTGTT ATTTCTCAGA 120  
CTTTGGAAAA TGCATTGTAT CGATGTTATG TAAAAGGCCA AACCTCTGTT CAGTGNNNT 180  
AGTTACTCCA GTGCCAACAA TCCTAGTGCT TTCCTTTTN AAAAATGCAA ATCCTATGTG 240  
NTTTAACTC TGTCTNCACC TGATTCAACT AAA 273

SEQ ID NO:3337

LENGTH:119

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03910

SEQUENCE DESCRIPTION:

GATCACCATG AACAAAGNTA TATTCCTAT TTATTATTA TATGTGCACT TCAAGAAGTC 60

ACTGTCAGAG AAATAAGNN TTGTCTAAAT GTCATGTTGG AGATNCCTTT GCATNCTTN 119

SEQ ID NO:3338

LENGTH:118

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03911

SEQUENCE DESCRIPTION:

GATCAGGACT TCAAGGGCCA GACCACAGAC TACTTATAGG AGCATCTTCA AGGCGGTCAC 60  
AGTGAAAACC TTGAAATGGC CTTTTTNAAT ATATATAANT AANTGTNAAT ATTATTNN 118

SEQ ID NO:3339

LENGTH:118

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03912

SEQUENCE DESCRIPTION:

GATCCAAATN ATGGCCACAG ATGAACCTCC ATGCAAGCNA TGGCTGAGTT TCATTGCTTA 60  
AAATNCTCCT CTGTTTAGAG GGGCCTGGTA GAAATAAAAA CCCACCCTAT ATCTTAAA 118

SEQ ID NO:3340

LENGTH:118

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03913

SEQUENCE DESCRIPTION:

GATCCTCCTG GCCGCCCGC AGGTCTNTGG AAGGGCTGGA CGGCAAGTCC GTNTAGCTCA 60  
CGGGCCCTC CAGTGAATG GNTCTTCCG GTGGAGATAA AAGTTGATTT NCTCTAAA 118

SEQ ID NO:3341

LENGTH:351

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03914

SEQUENCE DESCRIPTION:

GATCCCAGGT GCGTGTNTCT CTGTCTCTCC TAGCCCCTCT CTCACACATC ACATTCCCAT 60  
GGTGGCCTCA AGAAAGGCC GGAAGCGCCA GGCTGGAGAT ANCAGNCTCT TNCCCGTCGG 120  
CCCTGCGTCG GCCCTGGGGT ACCATGTGGC CACAACTGCT GTGGCCCCCT GTCCNNAAGA 180  
CACTTCCCCT TGTNTCCCTG GTTGCCCTCT TTGCCCCTG TCCTGAAGCC CAGCGACACA 240  
GAAGGNGNG GGGCGGTCT ATGGGGGAGA ANGGGAGCGA GNTCAAGAGG TGGGCATGGG 300  
TTTGNAAGG GTNGCGTTT GGGGGGCCTN TNATGNTGGC TTTTCAANC N 351

SEQ ID NO:3342

LENGTH:117

TYPE:nucleic acid



TOPOLOGY:linear

CLONE:HUMGS03915

SEQUENCE DESCRIPTION:

GATCATGCCG CTGCACTCCA ACCTGGGCAG CAGTGCAAGA CTCTGTCTCA AAAGGGGAAA 60  
AAAAAAANT TNCTGATGTG NCCCATGAAG GGACCTCATT TNCCTCGNAA TTTTGGN 117

SEQ ID NO:3343

LENGTH:116

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03916

SEQUENCE DESCRIPTION:

GATCGGCCGT ACCAGCCGCC CCGCCGCCG GTGGGCGCTC TCGGACTACT CGCTGTACTT 60  
GCCGCTCTGA GTCAGTGCC CCTTCGTTC TTGTAAATAA ATCCGCCCC CGGAAA 116

SEQ ID NO:3344

LENGTH:116

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03917

SEQUENCE DESCRIPTION:

GATCCAGACA AGTGGGAGAG CCCGTGGGGG CAGGGGACCT GGAGCTGCCA GCACCAAGCG 60  
TGATTCCTGC TGCCTGTATT CTCTATTCCA ATAAAGCAGA GTTTGACACC GTCAAA 116

SEQ ID NO:3345

LENGTH:116

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03918

SEQUENCE DESCRIPTION:

GATCTCATAA GAAATGTAAT ATGTAAATAA TATCTTGCTT TATGTTGTAA AATATACATT 60  
GTTTGCNCTA GAATAGAAAT AATTCTTTT CAATAAAAAG AAAGAAGGAC TCTAAA 116

SEQ ID NO:3346

LENGTH:116

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03919

SEQUENCE DESCRIPTION:

GATCGTTGTG TTGTTATTTT ACTGCACTTT TTACTTTTTT NCGTGTGGAG CTGTATTCCC 60  
GAGACCAACG AAGCGTTGGG ATACTTCATT AAATGTAGCG ACTGTCAACA GCGAAA 116

SEQ ID NO:3347

LENGTH:116

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03920

SEQUENCE DESCRIPTION:

GATCAAGGCC AAATAACCCG ATTTGGTTTG GGCACCTCAAG CAATAGTAAA GCCTGTAAGA 60  
CATGATAGGA TTATNTTCCC CTTTGGATTT AAATNTAATA TAGCAGTTGG ATTAAA 116

SEQ ID NO:3348

LENGTH:115

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03921

SEQUENCE DESCRIPTION:

GATCCTGTAG ACCCTTCTT TTGGCCAATT TCCCCCTTTT TGGGATGGAA ACATTACCC 60  
AATCCCTATA CCCCCATTGT ATCTTGAAG TAAATAATTT GTTTTGTATT TTAAA 115

SEQ ID NO:3349

LENGTH:115

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03922

SEQUENCE DESCRIPTION:

GATCTCTCA CTGTNAAAAG TTGCCCGGGT GCAGCGCCTT TCCCTTCTAN CATGGGAAAT 60  
GCAGGCTGGG CCCTTGGGNT NAGCCTGCGG GGCTCTGGTG CTGTCCCGA CCCNN 115

SEQ ID NO:3350

LENGTH:113

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03923

SEQUENCE DESCRIPTION:

GATCCACTGT TTGCAGCAGA ATTATATATA TGTATAGGAA AAATCCACTT TGAATAATCC 60  
ATGTTTTGTA TTTGGAAATT GTTTTAAAA ATAAAAAGGA AAGGAAATAT AAA 113

SEQ ID NO:3351

LENGTH:113

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03924

SEQUENCE DESCRIPTION:

GATCTAGGCA GTGGGTAAAG CCAGACCCCT AAAAGTGACC CTTTCCTCTT CTGCCCTATT 60  
CTNCTNAGAC CCTCAGAAAG NNNTCCAATT TTTTAAATC CCTGTAGCTC CAN 113

SEQ ID NO:3352

LENGTH:117

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03925

SEQUENCE DESCRIPTION:

GATCTGATGA ATTGGTTTT GAATCCCAGA AANGGTCTGC CATGGAGTTG GCAGTCATCA 60  
CGGTAGATGG CGTATGATTT TCCTGAATTT TAAATAAAAT GAAAACCATA AATTAAA 117

SEQ ID NO:3353

LENGTH:112

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03926

SEQUENCE DESCRIPTION:

GATCAGAGCT GTTAGGTAAG GGCCTAACCA CCTCCCTGCA GNCTCTTAAN TCTCAAGCTT 60  
TAGGAACCCA TTTCTAAANG TACACTAGCG GAGANTTTAT ATTGTCAGCC NN 112

SEQ ID NO:3354

LENGTH:111

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03927

SEQUENCE DESCRIPTION:

GATCACGGTA CGTCCATAAA GCCAGTATTA CACTTAAATN NAGTATTCTT TTTTGTAACT 60  
GTTTTTTTGA GAAGGTAAAC AAATTTAATA AAGCTACCAA TAATGTTGAA A 111

SEQ ID NO:3355

LENGTH:111

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03928

SEQUENCE DESCRIPTION:

GATCTAGAAA NTGCCCTCCT TATACCCCTA CCATGAGCCC TACAAACAAA AAACCTGCCA 60  
CTAATAGTAT GGTGATCCCT CTNANTAAAN CATCATCCTG GCCCTAAGGN N 111

SEQ ID NO:3356

LENGTH:111

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03929

SEQUENCE DESCRIPTION:

GATCTTTGCA ATTNAAAGNT TAGCCACGTG GCTTGCTTCA GCNAGTAATG TGAATGGAAA 60  
TAACGTGTAT CANTGCTGGA TAGAAAACCT AANAGCCAAC ACATGGTTCC N 111

SEQ ID NO:3357

LENGTH:110

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03930

SEQUENCE DESCRIPTION:

GATCCCGTAG AATATATATT TAATAATCCC ACAAACGGAG GCCAGACTTC TGCGTTAACT 60  
TCAGTAACAC AAGCTTCTTT AAGCCAAATA CATCACTTGC CACTACCAAA 110

SEQ ID NO:3358

LENGTH:110

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03931

SEQUENCE DESCRIPTION:

GATCTCCGTG GTGGTCGTGG GCCGCCAGGT GAATNANCCC CACATCCGCN TCCTGGTCAC 60  
CGGCAAGACG GCCGAGTACG ACGTGGCCTA CGGCGAGAGC ACCTNTNCCN 110

SEQ ID NO:3359

LENGTH:115

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03932

SEQUENCE DESCRIPTION:

GATCCTTCGA AGCACTCAGT TCACTCTTCC CCACCACAGT GGTAAAAGG CGTTGTATC 60  
TGCCACTATG TGTGTGTTTT AAAATAANCT TTTGGAACA TGTGTGNGN GNAAA 115

SEQ ID NO:3360

LENGTH:214

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03933

SEQUENCE DESCRIPTION:

GATCCACTAA TGTAGCTTAA GGTTATTAGN TTTGGGCTTT TAATCATGGN ATAATCTTAT 60  
GTATTGGTGT AAGAGTTGAT GAATGACTTT AGCTGTGTGA ATATATAATA GTCAAACCTGC 120  
AAACATTTTG CATCCCTTTT GTGACCTAAT TTACAGNCAT TTAAATTGTG TTGCAGTTCT 180  
GCTTTGCCGT TTAATAAAAA GCTATTTTCA NAAA 214

SEQ ID NO:3361

LENGTH:110

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03934

SEQUENCE DESCRIPTION:

GATCANAGAT TTCAATNACA GTGCAGGAAA GCAGCACTGA GAAACTTTTA ATTGTNTTNA 60  
ATTTCTNCTT TAATGTTTAC ACCACCACAT TCCCATTCAC TTTAATTTTN 110

SEQ ID NO:3362

2153480

LENGTH:108

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03935

SEQUENCE DESCRIPTION:

GATCTTCCCC TGACCTGCTC CCAGGGCTAT AACAGATACG GACTTTGAAA CTGTATGGAG 60  
TATAGAGCAG TGCTCTATAA TTAAAAATAT ACATATATTG CAACCAAA 108

SEQ ID NO:3363

LENGTH:363

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03936

SEQUENCE DESCRIPTION:

GATCTTCAGC TTGGTAGATT TAATTGCCCA GTGAATGGCA CTTACGTTTT CATTTTNNAC 60  
ATGCTAAAGC TGGCAGTGAA TGTNCCACTG TATGTCAACC TCATGAAGAA TGAAGAGGTC 120  
TTGGTATCAG CCTATGCCAA TNATGGTGCT CCAGACCATG AAAGTGTAG CAATCATGCA 180  
ATTCTTCAGC TCTTCAGGG AGGCCAGATA TGGTTACGNC TGCACAGGGG AGCAATTTNT 240  
GGAAGTAGCT GGGAAATATT CTACGGTTTC AGGCTATCTN CTTTTATCAA GGTTTGAATG 300  
TCAGTNCAGT NTTTGACNAC TAAAAGGNNT NGGGGTNCTA ATTANGTNGG GTTTGAAGGG 360  
TAN 363

SEQ ID NO:3364

LENGTH:106

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03937

SEQUENCE DESCRIPTION:

GATCTGGGGA GTNTNAGGAG AGGGTGGCAT CAGNAGCTGC TCAGGCTTGG CGGAGGGAGC 60  
GGCATGGCCG ATGTCACTCA GCCCCTCCC GGTCCGCCN NTTCCN 106

SEQ ID NO:3365

LENGTH:105

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03938

SEQUENCE DESCRIPTION:

GATCGTTTT TCCAGAGTCG CGGGGACACA GGAGTNTTC TACAGTACAT NCACGCCCGC 60  
NTCCACAGTT TGAAGAGAC TTTTGGATGT GGTACNTGA NTGAN 105

SEQ ID NO:3366

LENGTH:105

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03939

01128

## SEQUENCE DESCRIPTION:

GATCATCTAA AAAATGCCAT GANTGGAAAT NCGAAGGCC AGACACCAAT ATTCNTAGA 60  
AGTAAACAGC TCAAAGACAC TCTCCTATCT NAGGAAATNA ATGTN 105

SEQ ID NO:3367

LENGTH:104

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03940

## SEQUENCE DESCRIPTION:

GATCCAGTGG GGTCCGGACA CTGGGCCCCG CAGCGAAAGC ACGNTCCAGC CACCAGGAGG 60  
CCACCTATTN TTCAAATA AAGACTGCGT TCCTCTCTTG GAAA 104

SEQ ID NO:3368

LENGTH:104

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03941

## SEQUENCE DESCRIPTION:

GATCAAAAAA GAAGAGTTAA AACAACACAT GTAAATNCCT TTTAATATTT NATGGGAATG 60  
CCTCTCATTT AAAAATAGAA ATAAAGCATT TTGTTAAAAA GAAA 104

SEQ ID NO:3369

LENGTH:104

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03942

## SEQUENCE DESCRIPTION:

GATCCTTTAT CTTTCCATAT GGCACACGTA AGAAAGTGTT TTTCTACTAT TAATATTAAA 60  
TTAAACCTT TACTTNTGTA TAATAAATNA AAATCAGAA TAAA 104

SEQ ID NO:3370

LENGTH:104

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03943

## SEQUENCE DESCRIPTION:

GATCTGGAAG AGGCTTGTA CCTGAACTAN TATGTAGGAA GGCAGTACNA NCAGCCCACC 60  
AGTGTAATCT CCCTGNATTA AGGCATTCTT AAAAATTAG GCNN 104

SEQ ID NO:3371

LENGTH:104

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03944

## SEQUENCE DESCRIPTION:

GATCCGCTCT GGTCAAACCC TTCCAGGCCA GCCAGAGTGG GGATGGTCNN TNACCTGCTG 60  
GGAAGGCANN CTGATGGGGC ACACCCTTGG CCTCTCGTCC ACGN 104

SEQ ID NO:3372

LENGTH:102

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03945

## SEQUENCE DESCRIPTION:

GATCAAAATT TTTTGATAAT TTAATAATTG TGTGTGATTT TNAATTTNA AGAAATTGCT 60  
GAAACTTAG AAAATATAA TGGTATACAT ACAATAGNNA AA 102

SEQ ID NO:3373

LENGTH:105

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03946

## SEQUENCE DESCRIPTION:

GATCAATAAT TTAATGTAA CTAGTTGGGA TTTTATAGTT AAAATNATAT TTGTGTATAT 60  
AACATAACTA ATCTGTAAAT NGTAATAAAT ATATTNCAA TTAAA 105

SEQ ID NO:3374

LENGTH:99

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03947

## SEQUENCE DESCRIPTION:

GATCATTTAG TACTTTTGTN TTCTCCCATG TGCTTGAAGG AAAAATAAAG TGTCACTACC 60  
GTATTNTTG TTTTCATCAA AAAATAAAAA TAATTAA 99

SEQ ID NO:3375

LENGTH:97

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03948

## SEQUENCE DESCRIPTION:

GATCTTTAGC ACAGTGATAT NACCATGACT TCACAGACAT GGTCTAGAAT CTGTACCCTT 60  
ACCCACATAT GAAGAATAAA ATTGATTAA GGTAA 97

SEQ ID NO:3376

LENGTH:97

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03949

## SEQUENCE DESCRIPTION:

GATCAATAAT AATNAGGAAA GCATGATATG TATATTGCTG AGTTGAAAGC ACTTATTGGA 60  
AAANATTAAA AGGCTAACAT TAAAAGACTA AAGGAAA 97

SEQ ID NO:3377

LENGTH:94

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03951

## SEQUENCE DESCRIPTION:

GATCCCCCTC CTCCCCCTC TCCCCATTGT ATTTATTTGC CTGCTGGAAA ATNACATCCG 60  
GAAATAAAAT AGAAATATGT CTTTNNATTT TAAA 94

SEQ ID NO:3378

LENGTH:93

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03952

## SEQUENCE DESCRIPTION:

GATCCTAAAC TTTTGGATA ATCTTTTATA TTTNTAACCT TTGAATTTAA TCATTGTNCT 60  
NAGATTAAAA TAAANATGC TATTGAACT AAA 93

SEQ ID NO:3379

LENGTH:91

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03954

## SEQUENCE DESCRIPTION:

GATCTGGAAT TCCCTGCTGT AATCTTTTAA AGGGAATCCA CTGGAATAA TTAGTTTTTG 60  
TTTAAATAA AACCATTCCT TACTTAACAA A 91

SEQ ID NO:3380

LENGTH:91

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03955

## SEQUENCE DESCRIPTION:

GATCTATGGC CTCTGGTGCT TTGTCCTGTA TTTGGTTTAA TTTTTTGTG CTAATCTCTT 60  
CAATCAATAA AATTGTGCGT ATTAACTAA A 91

SEQ ID NO:3381

LENGTH:91

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03956



2153480

SEQUENCE DESCRIPTION:

GATCAACTNA ATGTTTAAGA CTTTAGATGT CTTGTATTAA AAATTACACA AAAAAAGTAA 60  
AACTTTTAT ACTTACCCTT TTAACCTCTAA A 91

SEQ ID NO:3382

LENGTH:90

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03958

SEQUENCE DESCRIPTION:

GATCTCTGTA ATNTTATNTA GAGTTTGAGC TGAAGCCCCG TATATCTAAT NTATTTTGTT 60  
AAACATGAAA GTGCATCCTT TCCCTCCAAN 90

SEQ ID NO:3383

LENGTH:88

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03959

SEQUENCE DESCRIPTION:

GATCATACCT ATTAAAATAA TGCCAAACAC CAAATATGAA TTTNATGATG TACACTTTGT 60  
GCTTGGCATT AAAAGAAAAA AACACAAA 88

SEQ ID NO:3384

LENGTH:88

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03960

SEQUENCE DESCRIPTION:

GATCAAGAAG ACGNNTAAGG GAAGAACGTA CACAGTGAAA ANCCAAAAAA AGAAAAAAAT 60  
GTTTATACAA CCCTAAGTCA ATAACCTN 88

SEQ ID NO:3385

LENGTH:87

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03961

SEQUENCE DESCRIPTION:

GATCTAGGCA CACCTNGCTC TTNGCTGCAT GTGGTTATNA ACANCTTCCA GTGGAAGTCG 60  
AATAAACAGT TTTTGGTAAA TCTCAAA 87

SEQ ID NO:3386

LENGTH:85

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03962

01132

## SEQUENCE DESCRIPTION:

GATCCTGCCC TGAATCTCCA TAGTCTCCAC TGTGAACTGA GGAGGGGAGG GGTGTGCTGG 60  
GGAATAAATC TTGTATGAGA ACAA 85

SEQ ID NO:3387

LENGTH:84

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03963

## SEQUENCE DESCRIPTION:

GATCCATTTA NAGGCCAAAT NTCATTCTGC AGGTGCCTTC CCGATGGATT AAAGGTGCTT 60  
ATNTTTTTTT AAGTTTNAAG TAAA 84

SEQ ID NO:3388

LENGTH:81

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03964

## SEQUENCE DESCRIPTION:

GATCGTGTTT ATTTTGNITT CCGATTCTAG ATATAAGTTT TGNATGGGCA GGAAGACTAA 60  
AATAAAAGTT TTAAAGGTAA A 81

SEQ ID NO:3389

LENGTH:81

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03965

## SEQUENCE DESCRIPTION:

GATCTCCAGA TGTAATTTCC CCTCTTTAAT TTAAANTAAT NTAAAGATTA CTAAACAAT 60  
AAAANCTCCT AAAAANTCAA A 81

SEQ ID NO:3390

LENGTH:88

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03966

## SEQUENCE DESCRIPTION:

GATCTTTCTT TCCAAAACAT TTCTGGACAG TACCTGATTG TATTTTTTTT TTAAAATAA 60  
AAGCACAAGT ACTTTNGNGN TTGTAAA 88

SEQ ID NO:3391

LENGTH:76

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03967

## SEQUENCE DESCRIPTION:

GATCCCCCA CAGCCCTGG TCAGTCTGCC CTTGTCAGTG GTCTGAGGTC ATTAAAATTA 60  
CATTGAGGTT CCTAAA 76

SEQ ID NO:3392

LENGTH:78

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03968

## SEQUENCE DESCRIPTION:

GATCACAAATC ATTTGAATC CCTCTTCCTC ACTTTTTTTT CTAAGAAAAT AAACATTTTA 60  
CTGTTTTTAT GGAATAAA 78

SEQ ID NO:3393

LENGTH:73

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03969

## SEQUENCE DESCRIPTION:

GATCACAGCT GACATTTACA AAATATTTTT NTACCTTAGA ATTCTGCAT TAAATAAAAT 60  
ATTTTGTTTT AAA 73

SEQ ID NO:3394

LENGTH:68

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03971

## SEQUENCE DESCRIPTION:

GATCTTTTGC TAATGCAATT AGNATTATGT TTTGCATGTA TGACTTAATA AATCCTTGAA 60  
TCATAAAA 68

SEQ ID NO:3395

LENGTH:67

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03972

## SEQUENCE DESCRIPTION:

GATCCTCTAA ATNTGGAATT TTGATGTAAT AACTGCTAAT AAAATNATAT TGAAACTGTT 60  
TTATAAA 67

SEQ ID NO:3396

LENGTH:65

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03973

## SEQUENCE DESCRIPTION:

GATCAAAGCC CGGAAAGGCA AATGAAGCNT CATGTGTAGT GTAATAAAGN TGTCTGCTGT 60  
TCAAA 65

SEQ ID NO:3397

LENGTH:65

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03974

## SEQUENCE DESCRIPTION:

GATCGAAGCC TGTGTAAAT GCTACCAAT GGCAAAAAGC AACAATAAAC AGTTTGATT 60  
TTAAA 65

SEQ ID NO:3398

LENGTH:64

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03975

## SEQUENCE DESCRIPTION:

GATCCCAAT ATATCTACCA TTGTATGTTA AATAAATNAC CATTTTGTG GAAAAAATTC 60  
TAAA 64

SEQ ID NO:3399

LENGTH:71

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03976

## SEQUENCE DESCRIPTION:

GATCTGTAAA TNACTTTAAA AGCTATTTTA GTAATTTAAA TAAATTTACT TTCTTGTTT 60  
ATACTCTCAA A 71

SEQ ID NO:3400

LENGTH:63

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03977

## SEQUENCE DESCRIPTION:

GATCTCTATA NTTTTTTTA AATTTCTCC AGCCTGGGTG ACAGAGCGAN ACTCCGTCTC 60  
AAA 63

SEQ ID NO:3401

LENGTH:63

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03978

## SEQUENCE DESCRIPTION:

GATCTCCTGC TGCCTTTCCT GGAGTTTGTA AAATTNTNCC TGAATACAAG CCTATGCGTG 60  
AAA 63

SEQ ID NO:3402

LENGTH:62

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03979

## SEQUENCE DESCRIPTION:

GATCCAAGCA TAGTAGAAAA GCTTCATGTG TTTAAAAAA TAAACAATAA CAAAAAATTA 60  
AA 62

SEQ ID NO:3403

LENGTH:61

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03980

## SEQUENCE DESCRIPTION:

GATCATGTGT TCTGGAGAGT GTTCTTTATT CAATAAAGTT TTAATTTAGT ATAAACATAA 60  
A 61

SEQ ID NO:3404

LENGTH:61

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03981

## SEQUENCE DESCRIPTION:

GATCTAATTT TTCAAACCTT CACTATTTTG AAAATATAAC CAAGGCCGGT TGCGGTGGAA 60  
A 61

SEQ ID NO:3405

LENGTH:60

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03982

## SEQUENCE DESCRIPTION:

GATCATGAAA CTGATTGTAA AGCTTTTGA CAACTAATAA ATGTCTTGGT AATTGCTAAA 60

SEQ ID NO:3406

LENGTH:59

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03984

## SEQUENCE DESCRIPTION:

GATCAATGGA TTTGTTTACA ATGTGATATT TTCTATTAAA TCCAGTATTT TCAAATAAA 59

SEQ ID NO:3407

LENGTH:58

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03985

SEQUENCE DESCRIPTION:

GATCTTGAC TAACCTATGA TAGAATGTAT CAGAATAAAT ATTTTAAACA GTGTAAA 58

SEQ ID NO:3408

LENGTH:53

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03986

SEQUENCE DESCRIPTION:

GATCATNAAA GTATACAAAA TAAATAAAGT AGGAGATTTT TTTGCTGTTT AAA 53

SEQ ID NO:3409

LENGTH:121

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03987

SEQUENCE DESCRIPTION:

GATCTGTTTA GTGAGATTTA GCATGTGTGA ATAAAGTATA TGCAGGAGGA AATTGCTTTG 60

TNTTCCAAT CGGTAGAAAT TCGGGACCAT AAAAATTGTG TTTTACCATG TGGCCTACAA 120

A 121

SEQ ID NO:3410

LENGTH:51

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03988

SEQUENCE DESCRIPTION:

GATCATTGTT AAAGGATTGC TGCAAATAAA TACACTTTAA TNTCAGTCAA A 51

SEQ ID NO:3411

LENGTH:60

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03989

SEQUENCE DESCRIPTION:

GATCTTTAAA ACATTTTAA TGAACAAAGT TGAATAAAGG CACAATTAAA AACTGTCAAA 60

SEQ ID NO:3412

LENGTH:53

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS03993

SEQUENCE DESCRIPTION:

GATCAACAG AAGCAGCCGT GGGCAAAATA CAATTCATT TAACAAATTG AAA 53

SEQ ID NO:3413

LENGTH:521

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04020

SEQUENCE DESCRIPTION:

GATCTCATAG GACGGAGGGG GAAATGGTTT CCCTCCAAGC TTGGGTTAGT GTGTTANCTG 60  
CTTATCAGCT ATTCAGACAT CTCCATGGTT TCTCCATGAA ACTCTGTGGT TTCATCATTC 120  
CTTCTTAGTT GACCTGCACA GCTTGGTTAG ACCTAGATT T AACCTAAGG TAAGATGCTG 180  
GGGTATAGAA CGCTAAGAAT TTTCCCCCAA GGA CTCTTGC TTCCTTAAGC CCTTCTGGCT 240  
TCGTTTATGG TCTTCATTAA AAGTATAAGC CTAAC TTTGT CGCTAGTCCT AAGGAGAAAC 300  
CTTTAACCAC AAAGTTTTTA TCATTGAAGA CAATATTGAA CAACCCCTA TTTNGTGGGG 360  
ATTGAGAAGG GGTGAATAGA GGCTTGAGAC TTTCTTTGT GTGGTAGGNC TTGGAGGAGA 420  
AATCCCCTGG NCTTCTACTA ACCCNTNTGG ACATACTNCC CACAACCCAG TTNGATGGGN 480  
TTTCCCGTAA TAAAAAGGGN TNGGGNNTTN CCTTTTGA A 521

SEQ ID NO:3414

LENGTH:501

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04021

SEQUENCE DESCRIPTION:

GATCAGAAAT NACTGTGTCA TGGTGCTCAT TCACTGCAAA CTCCCAGTTG NAAGCTCCTT 60  
GGCTCCCCCG GAGGAGCAAG AATCTCATAG TTCAGAGACA CAGAGGGCCT TTTAGCCCTA 120  
ATNACCTTTT GGATGGGACT GCAACTCATG ACTATCCTGA TATTGGAAGA AAGGACTTTG 180  
TTAATCTTCT CCCCCATAGC TCTGCTGCGT AGGTCTACAT CTTACTCAGA ATCACTACAC 240  
ATTCTTTTAG TCTTCCTCCA AGCTCCAGAG CCATTGGTAC AAATGCTTTA TTGAAACTAA 300  
ATACATANTN NACACAATGA GATGAAGACA ATATAGANGT NCGCATAGTC ATCATAATCC 360  
CGTTCCTTGG CCGGTTGAGG CAGCTCAGTG GCTGAGCCCA GTCAAGCCAA CCCGGNAGTT 420  
TCACTCACGG CNTTCAAGGN TTTTGATGCT AATTCTTTTG GGTTCCTAC AGTTTATTAA 480  
ATAAGTNGTC TGNGTGGGAA A 501

SEQ ID NO:3415

LENGTH:485

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04022

SEQUENCE DESCRIPTION:

GATCTCAGTG AACTAATACA CAGCTTGAGC GTTCCATGT GCTAATGTTG CACATTTACT 60  
 AAAAACTTT GGAAATGGAA AATAATGTAT TAGTGCAACA GTTGATGTGC TTCTTTGGGC 120  
 AAAGATATAG TTTTGTTCCT CAATTGTGAC TTAAGGCGA AAGAACATTG AAAACATAGA 180  
 CTTACTGGCT GTAGCAATGC TGGCCTGTGA ACTGATAACT AGAACTTAGG TTCACGTTTA 240  
 TGTAAGTGT GTAAACCTA GTAGAGCTTG CATAGTCGGG CACTCAGTAA ATGGTTTGGT 300  
 TCCTTTTGGC CCTTGGTAAG TTTATTTTAC CCATCCNCCC ACCTGCCCAT TCTGACTTTN 360  
 TATTAAATC ANCCATGTGG GACCCAGNGG TGTTAATGN GGATGTTATT NCCAGAAGGA 420  
 GGATTTGAGA AAAATTGGG GATTNTCATT GCAGGTTAAC NATTCAAAA ATNCTTTTGT 480  
 GTAAN 485

SEQ ID NO:3416

LENGTH:471

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04023

SEQUENCE DESCRIPTION:

GATCTGTTTT TTCATCGAGG TNTCGAGGTA TNCTTTNAAA GATAGTGANA NGCAGACACT 60  
 GCTCCTGTG CAGCTCTGGT ACCTCCTGCC CACTGCTGTC ACTTCAAGCC ACTGGCAATG 120  
 CTTCTGCTCT CGTGTCTTGG AGGAAAAATCA CCTGGGGGGA GGGGACTTCT TGTGGTAAGA 180  
 GCAAGTGCAG GTATGAAATG CGAAGATTGC CCCAGCTAAA AGTGGACAAG TCCGCTTTGT 240  
 GAGATGAATA CTTCTGAGA NNCNNNNCAA GTATCTCTCC ATTTTACCAT TATGAAAACT 300  
 ATCATTAATA AAAACAGTTT AGATGCCTTC TCCTTTTGAG GGAAAAAGGG TGCTTTTAT 360  
 TGTATAAAGC AGCGTCTTAT GTATTTTGAT ATACCATTGT TTGAACTTCC GTCTTTAGCT 420  
 GATAGATTCT CAAATATCCT NGATTTTGGG ATGTTTCAGTA TGTGTGTGAG N 471

SEQ ID NO:3417

LENGTH:466

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04024

SEQUENCE DESCRIPTION:

GATCAATAT ATTTCAAGCT ATAAAAGCAG GAGGTTATCT GTGCAGGGGA CTGGCATCAT 60  
 GTATTTAGGG GCAAGTAATA ATGGAATGCT ACTAAGATAC TCCATATTCT TACCCGAATC 120  
 ACACAGACAG TTTCTGACAG GCGCAACTCC TCCATTTTCC TCCCGCAGGT GAGANCCCTG 180  
 TGGAGATGAG TCAGTGCCAT GACTGAGANG GANCCGACCC CTAGTTGAGA GCACCTTGCA 240  
 GTTCCCCGAG AACTTTCTGA TTCACAGTCT CATTTTGACA GCATGAANTG TCCTCTTGAA 300  
 GCATAGCTTN NNNAATATCT TTTTCCTTCT ACTCCTCCNT CTGACTCTAA GAATTCTCTC 360  
 TTTCTGGANT CGCTTGAACC CAGGANGGCG GGAGGTTNCA GTAAGCCAAG GTCANTGCNA 420  
 CTGCACTNTT AGCCTTNGGT NANAANTNGA GGTTTCATT TNTAAA 466

SEQ ID NO:3418

LENGTH:464

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04025



## SEQUENCE DESCRIPTION:

GATCGCCAGG CTGATTGAGA AGAACAAGAT GAGTGACGGG AAGAAGGAGG AGCTCCAGAA 60  
 GAGCTTAAAC ATCCTGACTG CCTTCCAGAA GAAGGGGGCC GAGAAAGAGG AGCTGTAAAA 120  
 AGGCTGTCTG TGATTTTCCA GGGTTTGGTG GGGGTAGGGA GGGGAGAGTT AACCTGCTGG 180  
 CTGTGAGTCC CTTGTGGAAT ATAAGGGGGT AGTGGGAAAA GTGGTACTAA CCCACGATTC 240  
 TGAGCCCTGA GTATGCCTGG ACATTGATGC TAACATGACC ATGCTTGGGA TGTCTCTAGC 300  
 TGGTCTGGGG ATAGCTGGAG CACTTACTCA GGTGGCTGGT GAAATGACAC CTCAGAAGGA 360  
 ATNAGTGCTA TAGAGAGGAG GAGAGGAGTG TACTGCCCAG GTCTTTGACA GGTGTAATTC 420  
 TCATTCAANTT AAAGGTTTCA GTGTTTTTGG TTAAGGTGGA TAAA 464

SEQ ID NO:3419

LENGTH:457

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04026

## SEQUENCE DESCRIPTION:

GATCACCTTC CTGTCTGGAG GCCAGAGTGA GGAGGAGGCG TCCATCAACC TCAATGCCAT 60  
 TAACAAGTGC CCCCTGCTGA AGCCCTGGGC CCTGACCTTC TCCTACGGCC GAGCCCTGCA 120  
 GGCTCTGCCC CTGAAGGCCT GGGGCGGGAA GAAGGAGAAC CTGAAGGCTG CGCAGGAGGA 180  
 GTATGTCAAG CGAGCCCTGG CCAACAGCCT TGCCTGTNAA GGAAAGTACA CTCCGAGCGG 240  
 TCAGGCTGGG GCTGCTGCCA GCNAGTCCCT CTTCTGNTCT AACCACGCCT ATTAAGCGGA 300  
 GGTGTTCCCA GGNTGCCCCC AACANTTCAG GCCCTGCCCN NNTNCCAAC NTTTGAAAGA 360  
 GGAGGNCGCC TTCTTNGGGG GCTTCCAGGT TNGGNTTNC CCGGGNTTTT TTTTTTCCC 420  
 TTGGGTGANA NATGGGTNGT TTNGNGGCG GTNNTTN 457

SEQ ID NO:3420

LENGTH:452

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04028

## SEQUENCE DESCRIPTION:

GATCTGGAGG GGTCAACGGA AGACGGAACA TGTCCACTTC CAGGCCCCGAG CTTCTNAGCC 60  
 TGCCGTTTGC CACTCTCCAG CATCTGGCCC AGCCTGTCCA TCCTCATCTC TCTTCTCCN 120  
 NNACTCCGTG CTCCCATCAC TNGGAACCAT TTGCATTNTT TTGTCTCAGC TATATTGTCT 180  
 CACCTCTGAG TTTTGGCCCA TGATGTTGGA TGCCATGGAA TGCCATATCN TCCCCATTAT 240  
 CTCCCCCTTG TNTGGATAAT TCCTACTCAT CCTACAATAC TGATTTTTAT CTGTGCAAAG 300  
 AAGGTCTTCC CCAAGTGGCC TCTGGGTTNG ANAAGGGGNG TTCCTCTGGC TTNTTCCAGA 360  
 CTTTTTTGTT TCCTNCAACC AAAAGGCTTT AGGCACCGTG GGGGAAGGAG GGGTNTTNT 420  
 TNGTCCNAGG GAAAAAGNNT NGNGGCAAT GN 452

SEQ ID NO:3421

LENGTH:450

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04029

## SEQUENCE DESCRIPTION:

GATCAAACT AACCTTTCAG CGTATTCTCA GCTATGACAC AGTGGTGCAA ACAACTGGAG 60  
 ACTCGTGGCA CATACCATAT GATGAAGACT TGGTAGAAAG ATGTTCTGT GAAGTACCAA 120  
 CCAAATGGCT TTGCCTCCAC CAAAAGACAT AGAGATTCTT ACCTCTATGC TAAGTTGTG 180  
 TTTGGGTACC CTCTAGGTG GCATCAGAGG CTCTTGAGCT GGTGTTGTT TAGGGCATTG 240  
 CCTCTGTCCT GAAGATAAAA GGATTNTATT AACAGCATTG ACATTGATT TTTAATGAAA 300  
 TGAGATATAT CTTTCATAA CCAGCTGCGT TTTTTTCCCC TAACATTGT TTTGGAGGG 360  
 CTTATCAAGA GTTGGAGACC TTAGTGTAGA GCAAAACCTG CATTTCTCT ACTGGGCCAG 420  
 CTATTCCACT TAGGCTTGGG TGAATAANAN 450

SEQ ID NO:3422

LENGTH:444

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04030

## SEQUENCE DESCRIPTION:

GATCCCAAGT ATTAGGAGCT ATTTCTTAAA TAGTTTAAAT TTGCCTTTGA AAAAAGTTCC 60  
 ATTACTTAAA AGTATTAATT TAAGCAAAAT CATGGAACAC ATTGACTAAA AAATACCTTT 120  
 TATTTTTACT CAACTTGTTA AAGGGGCAGA TAAAGACTTT GGCAAATTTG ATTAAGTCA 180  
 CAAAATAATG TTATCCAAAC TGAGTAATTT ATTGCTGGTC TNGGGCTTGC CTTGTTTACA 240  
 CTTAAGTAGA ATTTACGTTG TTTCCACAAA TGGCAGATAT CANCATTTAA AGGNATTTAA 300  
 TAGTGACCTA TTCAATAAGG CANTCATCTG GGGTAGCAAA CTTTTNTTTA AATCTNACAT 360  
 AACCTCAGGC TTTATAANAA NGCCACCATA ATTGGAAAAT TGGGGNTCCT CCCCTCTAAA 420  
 NGCCTTAAGG GATTCAAAGG CTCN 444

SEQ ID NO:3423

LENGTH:439

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04031

## SEQUENCE DESCRIPTION:

GATCTTGTTGA AAATGCTGTT AGTATCCAAC CTTAAATAT ATTAGTATAT GGGTTTTTAT 60  
 TAAAAGAATT ACTTTGAATT TNCTATTTAA TTCATATGTA AATAAAGGAA CATTTCATT 120  
 CACTTAAAAA AATTATATCA GTTATTAGGC TGGGTGCAGT GGCTCATGCC TGTAATCCCA 180  
 GCACTTTGGG AGGCCAAGGC GGGTGGATTA CCAGAGTTCG GGAGTTGAG ACCAGCTTGA 240  
 CCAACATGGA GAAACCCCGT CTCTACTAAA ATTACANAAT TNGCCAGGTG TGGTGGCGCA 300  
 TGCCTGTAAT CCTGGGCTAC TCAGGAGGCT TGAGGCAGGN GAATNGGNTT GAAAACCCCN 360  
 GGGGGNNAGA GGTTCGGTT GAGCTGAGNN TTGCGCCATT NNACTTCCNN CCTGGGCAAG 420  
 GNGGGGNGNA ACCTNTNNN 439

SEQ ID NO:3424

LENGTH:437

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04032

## SEQUENCE DESCRIPTION:

GATCTAAGAA ATCATGTGCA TATATCTTTC AGATTCTAT TTTGGGAAAN TGAAGGTTTC 60  
 TACAACATAT TGTTTCAGTG TTCAAATAAA CTGAAGGACT CAACATTACA TTTGAACTAT 120  
 ATCCTTCCTA GTGGGTTAGT GTGAAAAAGN GNTTGGCTGA TTCCTAAAAC TCTGCCAGCC 180  
 CTGCAGTAAT CTCCAGGGNC NNGTTATTGT TCAGACATTC CNTGGTGATT CCTGGGAAGG 240  
 AAGCTTGGCT GCTCAGTTTC TGAGTCTGGG GTGAGATAAT GTTCTGGGAA GGGACATCTG 300  
 TTCTTTGGTG TAATCTCTCA TGGTGAAATC TGCTCTGTAC ATCAGACAAT TGCATTGCTA 360  
 CCAAGTTTCA TACCAAATAT TTGAAAGGTT GGTATTGAAT CTAAANCCAA ATATTAGTTT 420  
 TTNTTAAACT CATGGGN 437

SEQ ID NO:3425

LENGTH:424

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04033

## SEQUENCE DESCRIPTION:

GATCCAAACC TTACACCTGA GTCTGTTAAG AGCGCCCTGC TACAGGAGGC CACAGACTGC 60  
 CTGATTCTNN NGGACCGCTG TTCTCAAGGA CGGGTAAAGG GTCTCCTGGC CAAAATTCCC 120  
 CAAAGCTGTG AAGACAGAAA AGTGGTGAAC TATATCAGAA AAGTGCAGCA GGTTTCTGAA 180  
 GCGGCACCCCT ACAATGGAAC TTAAGACTTG TATTACTTTC CCAAGAGGAA AGGATTTTTT 240  
 TCCCATCCCN NNTTGTATGA ATGGAGTTAT TTANGAAAAA ANGATATTTT TACACGAAAC 300  
 TTTGTAAGTG AAAGCTGCTT TTTCTTCCT TTTCTTTCCT TTTACCTCCA TAAGGAATAG 360  
 GGAANGTAGG ACCAAGANAN AATTGAACTC CTTCCCATTT TCTAAATAAA GGTTTGGGG 420  
 GAAA 424

SEQ ID NO:3426

LENGTH:422

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04034

## SEQUENCE DESCRIPTION:

GATCTCNGAG CTACAATACT CACTANATAT ANTTTTCCAA TCAAATATN CTATTCTATA 60  
 TTCTAAGGGT TAATATGTGA TTATAGTGT CACTGCCAC CATTTTTTA AATCAATGGA 120  
 CTGAAAAGT ATTAATTTAG ATGGATGCGC AGATATACCC TCAGTTCAGT CATAGATTGG 180  
 AGTTTGCATA TAATANNNCN CCGGTATGTN GACACTATTC TAAATAGTTC TATTATGACT 240  
 GAAATTTAAT TAAATAAAAN NGGTTGTAAA ATGNGATGTG TATGTGTATA TACNGTATGT 300  
 GTACTTTTTA AAATAGGGTG TATGTCCCAA CCCTTTTTTA TACAGGNTG AATTTAAAAA 360  
 TACCATGGTT ATATACATAT ACCTNGNNTT NGTCCTAAAA TAAAGGNTT TNATGCACGC 420  
 NN 422

SEQ ID NO:3427

LENGTH:408

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04035

## SEQUENCE DESCRIPTION:

GATCTTTCCA CCTCAGCCTC CTGAGTGGCT GGGACTACAG GTGCATGCCA CCAAGCCTGG 60  
 CTAACCTTTT GTAGAGATAG GGTTTTNCCA TGCTGCCCAG GCTGGCTTAG AATTCCTGAA 120  
 TTCAAGTGAT TTGTCTGCCT CAGGCTCCCA AAGTGCTGGG ATTACAGGCA TGAGCCACAC 180  
 TGCACCCAGT CCATGCTACC CTTTTATAT GAAACACCTA TTAACACGGT ACAACAACAC 240  
 TTCAAAACAT ATTATTTGAA TTTNGGCNTC TGATTTTTTA GTCANCAATC CATTANGGCA 300  
 AANACCTNGT TTTCCAAACT CAGATGTTCT CCAACTTACA CTAATGINTG GTTTTTTTGG 360  
 ACTTNGGTGN GGGGAAAAAN TTAACCNGGT TTNNTTTN TTATCAAA 408

SEQ ID NO:3428

LENGTH:378

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04036

## SEQUENCE DESCRIPTION:

GATCTTAGCT TCTTTAATCA GACTTTGTGA CTTAAAAGTT TGGGGGTTTT CTTTGAAAGT 60  
 TTCCAGCCCT ATTCAGAAAG CAACTCTTGG CTGTGTGCAT TTTTCACTC CAAGCAGCCC 120  
 AGGGGTAAAGT AAACAAAGTA TGGATGAAGG TCAGATTTTN TTGTCANNNT CTGAGAAACC 180  
 TGGCAGCCTG CTGTTAACAA CACAGGCCAG TATTGGGTTT TATTGAATTT GGTATGTGAC 240  
 CAAGGTCGGC CTAAAGGATG GCGCAGGTCC TGGGCAGGAA AGAATTTTTC CTTTATCACA 300  
 TAACTGTAAT ATTTGGTTGC TCAGCATAAG TNATGGAAGC AACCACCTAA TTTCTAATAA 360  
 ANTTGTGTGA ACCTCAAA 378

SEQ ID NO:3429

LENGTH:376

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04037

## SEQUENCE DESCRIPTION:

GATCACAACA CCAGTACCAG CACGAAGAGC CTCCTCCCGA AAGAGTCTCG ACTGGACACC 60  
 TTCTGGGACT AGCAGTGAAT CGGGACACAA ACCACCCACC CCATTGGGAG AAAAACCAG 120  
 ACGCCAGGAA AAGAAGAAAC AACAAAGGCA GGAGAACAGC CACTTTCAGA CTGAAAATG 180  
 ACAAACCCCT CAGTTGAGCC TGAGCCCCG GCGCGGGGGC TGCTACACTA CAGGACACCC 240  
 AGCATCGGCT TTGACTGCAG ACTGTTACC CACACGAGCC CTGTGCTTTT GGTGTAAATA 300  
 ATGTACAATT TGTGGATGTC ATTGAATCTA GAGGACTTTC CCCTTTTAT ATTTGTATTA 360  
 ACTTTAAGTT ATTAAT 376

SEQ ID NO:3430

LENGTH:368

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04039

## SEQUENCE DESCRIPTION:

GATCAAGCTT GTGTAATGA CCGTTTTTAT ATTACTTTTG TAAGTATTCT TGTCCACATT 60  
 CTACTTCAGC TTTGGATGTG GTTACCGAGT ATCTGTAACC CTTGAATTC TAGACAGTAT 120

TGCCACCTCT GGCCAAATAT GCACTTTCCC TAGAAAGCCA TATTCCAGCA GTGAAACTTG 180  
 TGCTATAGTG TATACCACCT GTACATACNN NGTATAGGCC ATCTGTAAAT ATCCCAGNGA 240  
 NCAATCACTA TTCTTAAGCA CTTTGAAAAAT ATNNTATGT AANTNATTGT AAACTTTTTC 300  
 AATGGTTGGG ACAATGGCAA TAGGACAAAA CGGGTTACTA AGGTGNAATT GNCCAAAAAA 360  
 TTTTTTAN 368

SEQ ID NO:3431

LENGTH:374

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04040

SEQUENCE DESCRIPTION:

GATCAATCTC AATTCCTTTT CATGCCCTCC TGCATTGCTG CTGCGTGGGT ATTTGTCTCC 60  
 TTAGCCATCA GGTACAGTTT AACTACAAT GTAAGCTATA GGTGGAGCAT CAGCAGTGAG 120  
 TGAGGCCATT CTTATCCTT AGGATGTGGC AATGAAATNN TGGTGCAAGT TCCTTTCTCT 180  
 TTTGTGAATC TTTCCCCCA TTTCTGTTT ACATGTAACC CAACAAAATG CAATTTCTAG 240  
 NGCCTTCTGT CCAATCAGTT CTTTCTCTG AGTGAGACGT ACTTGGCTAC AGATTTCTGC 300  
 CTGTTTTGC GACATTNNTC CCATTCACAC AGNTATTTAN GGGGCTAATN AANNGGANAA 360  
 ATAAGGCTTA CAAA 374

SEQ ID NO:3432

LENGTH:369

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04041

SEQUENCE DESCRIPTION:

GATCCTGGAG AACCTAAGAC TCCAAAAGCG TGGTACTGGA GGAGTGGACA CTGCTGCCAC 60  
 AGGCGGTGTC TTAAATATTN CTAATTTGGA CCGACTAGGC AAATCANAGG TGGAGCTGGT 120  
 GCAACTGGTC ATCGATGGAG TAACTATTT GATTGATTGT NAACGGCGTC TGGAGAGAGG 180  
 CCAGGATATC CGCATCCCCA CACCTGTCAT CCACACCAGG CATTAATCC CCATCGNCCA 240  
 GCTGATGACT CAAGATTCCA AGGAGTTCTG CTCATTCTAA TGGTGGGCCG TTCTACTTGN 300  
 TCTGGACCTG NCCTNGNATC CCCNTNGNCC TNTNNTTCCT TAGTTAAAGA CTTNGTTAGC 360  
 TGATGNAAA 369

SEQ ID NO:3433

LENGTH:358

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04042

SEQUENCE DESCRIPTION:

GATCGTGGGG TTGTTGGCAG AGGGCAACCC TGGGCCCCAC ACCGTGTGGA CAGGCAGACA 60  
 CCAGATTGTC CAGGAGCAGG AGCTGCTGGG ACTGCGCTGG CCCCAGACCT AGTGGGCCTT 120  
 CTCCTGGCTG CTGAGATGTC GTCTGTGACT GGCCTGGCTG GAGGGGGAGT GTTGACAACC 180  
 CAAAGCTGTT CTCCAGTCTG GGGAGGGAGA GGCAGGGTCC CCAATGTCCG AGCTGNATCT 240  
 GGACGCTGCT CTAAAGGAC CTCCTGGGGN AGGGGAAGCG GTAGGNTCTG GACTGGGNAA 300

GATGCTGTAT GACCTCCCTG AAGNACCCGT GACTTCCCCA TGNTTTACCC TTTTGTGN 358

SEQ ID NO:3434

LENGTH:354

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04044

SEQUENCE DESCRIPTION:

GATCTAGAAA GCAACTTGA AGTGTAAGA GTCACCTTCA TTTTCTGTAA CTCAATCAAG 60  
 ACTGGTGGGT CCATGGCCCT GTGTTAGTTC ATGCATTAG TTGAGTCCCC AATGAAAGTT 120  
 TCATCTCCCG AAATGCAGTT CCTTAGATGC CCATCTGGAC GTGATGCCGC GCCTGCCATG 180  
 TAAGAAGGTG CAATCCTAGA TAACACAGCT AGCCAGATAG AAGACACTTT TTTCTCCAAA 240  
 ATGATGCCTT GGGGTGGGGA GTGGTAGGGG GAAGAGCTCC CACCCTAAGG GGCACACACT 300  
 GAGTTGCTTA TGCCACTTCC TTGTTCAAAA TAAAGTAACT GCCTTAATCT TAAA 354

SEQ ID NO:3435

LENGTH:354

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04045

SEQUENCE DESCRIPTION:

GATCATTAAAT GAGGAGCTGA TGGCCTCCCT GGACCAGCCA ACACAGACAN TGGTGATGCA 60  
 CCGCACTGAG CCCACTGCCC AGCAGAACCT GGCTCTGCAG CTGGCCGAGA AGCTGGGCAG 120  
 CCTGGTGGAG AACAACGAAC GGNTGTTTGA CCACAAGCAG GGCACCTACG GGGGCTACTT 180  
 CCGAGACCAG AAGGACGGCT ACCGCAAAAA CGAGGGGTAC ATGCGCCGCG GTGGCTACCG 240  
 NCAGCAGCAG TNTCAGACGG CCTACTGAGC TCTCCACTCT GTTTCCCGCC TGGGCCATCC 300  
 AACCTTGAAG TCCTAAACCA CACCTCAGTC ACTAAAGGTC TGTTTAAAGT TAAA 354

SEQ ID NO:3436

LENGTH:350

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04046

SEQUENCE DESCRIPTION:

GATCTAATTT ATTTATTTAT TGCCTGGCCG GTGACTCGGG GGAGGAGGCG ACCCTGTCAT 60  
 CTGTCCCACC TGCTGCTGCC CCTTGGAGCA GCCTGCACCT NCTCTCCTCC CATCCGGCAA 120  
 CAGTNTGAAA GTACGTGGAG GACGGGACCG GAAGACGAGA GAGGGCTGGA CATCCTGCCC 180  
 ACCGTNTCCC AGCCAGGGCA GGNGAGGGGA CCATGGCCCG NANGTCAAGG GGCCCCGATG 240  
 TGCACAGCTG CCACAGGGAG GGAGNTCTTG GGGAGATGGG CANTCAGGTG GCCCCTCCTT 300  
 GGTNGAGTGC ACANANTTGC GCGNACANAT CGGGGTTTTT CCTGGNTTTN 350

SEQ ID NO:3437

LENGTH:348

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04047

## SEQUENCE DESCRIPTION:

GATCTTGAAT CTCTTTCTTT GTTCTGTTTG TTTAGTTAGT ATCATCTGGT AAAATAGTTA 60  
 AAAACAACA AAAAAGTCTG TATCTGTTTC TAGCATGTGC TGCATTGACT CTATTAATCA 120  
 CATTTCAAAT TCACCTACA TTCCTCTCCT CTTCAGTAGC CTCTCTGAAG GTGTCCTGGC 180  
 CAGCCCTGGA GAAGCACTGG TGTCTGCAGC ACCCTCAGT TCCTGTGCCT CAGCCACAG 240  
 GCCACANTGA TAATGGTCTG TTTAGCACTT CTGTATTTAT TGTAAGAATG NTTATAATGA 300  
 AGATACACAC TATANCTACA AGAAATTATA AATGTTTTTC ACATCAAA 348

SEQ ID NO:3438

LENGTH:347

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04048

## SEQUENCE DESCRIPTION:

GATCTGAGCC ACCCTCCCGG CACAGCCCTG CACCCCGCCC CTAGGGTTGG CAGNCTCANT 60  
 TGGCCCTGG CAGAGGAACA AGGACACAGA CATTCCCTCA GTGTGGGGGG CAGGGGACAC 120  
 AGGGAGAGGA TGGTTGTCCC TGGGGAGGGC CCTCTGGCCC CAGGCAACCT TAGCCCTCA 180  
 GAACAGGGAG TCCCAGGACC CAGGGAGAGT NTGGGGACAG GACAGCCTGT TTCTTNTAGC 240  
 TTCCTGGGGT GGGAGGCACA GGGGCAAAGC ANTACCCAG GGAAANTGGG AGGTGGTGCT 300  
 GGTGCTCTCT CCAGGNCCAC CATGCTGGGA GAGCGGCCA GAGCTTN 347

SEQ ID NO:3439

LENGTH:346

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04049

## SEQUENCE DESCRIPTION:

GATCTTCCCT GGNCGCCTTC GGCTGCNTGC NTGCCTGAGG TCCNGCTGC CAGTCCCGGG 60  
 CCCTGGAGAG CAGATGCTGT CTGTGNATGT ACAGGAGGAC CTTTTAAAAA AATCAAGTTT 120  
 CTATTTTTTN CTGGTAGTCC GCATACCCAT ACCCTCTGTT TTNAAAGGC AAAGGCCAAT 180  
 NAGTCCCAT TTGTAGCATG GCACCAGGGT CTTAGGCCTA GTCCTCTCAT TCCTCCACC 240  
 CTCCGAGATG GTCAGTGTGT CATGGGAAGC CCACCCAG CTCTGCCAGT GCTCTCTGGG 300  
 CCTGGNTCCN AGTCAGTGGT GGCCACGATG CGGTACAGGG CATCCN 346

SEQ ID NO:3440

LENGTH:343

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04050

## SEQUENCE DESCRIPTION:

GATCCATGTG ATTATTAATA TGACTGTAGC TGAGAGCTCT AATTNCTG TCTTGAACT 60  
 GTATAAGANC TCATGTGATT AAGTTCACAG TTTATTGTTT GTNTGTTTAG TATTTNAGAA 120  
 ATATACCAGC ACTACTAATT AACTAATGTC TNTNATTTAT NATATTATGA TAAAGTAAAA 180  
 NTTTCACTTG CATTAAGTCT AAAGTGAGAA GGTAATTACT GGGNGNGAN TGACGAGCTT 240

TGACTTTGAC AGGCGGTTTG TGCAGGAAAG CACAGTGCCG TGTTGTTTAC AGCTTTTCTA 300  
 GAGCAGCTGT GCGNCCAGGG TAGAGGAGTG TNGAAATTCA TTN 343

SEQ ID NO:3441

LENGTH:340

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04051

SEQUENCE DESCRIPTION:

GATCTGCTCA GAAAGGAAGA GGCAGGCGCC AGGGGGAACC CCCTTCGTGT TTTGTAACCC 60  
 TCCCTTTNAG GTGAAGCCCT TTTTCTTGCT AAAACCGGCA ATTCTCCGGT TAGAAATNTT 120  
 ACTTGGTGTT TTTTGGTTTT GTGAAACGGC CGTCCCAAAG CTGGCTGGAT TCCTAGAAGA 180  
 GTCTGTGTTG AAGGCATCTT TCAAGCCCTC GCTCTGGTTC TNAGGCGAGC ATTTCCAGG 240  
 CGGGTTTGGT TTGCATTCTT TGGAGCCTCT CCGNGNAGCA ACCAGACGGG AGATTTTAAT 300  
 TTTAAGCTGT TCATGCTGGG NCTGACAGCC TGCAGGGTTN 340

SEQ ID NO:3442

LENGTH:339

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04052

SEQUENCE DESCRIPTION:

GATCCTTGGG CTGGCCTAGA ACCAGTATCT GTAGTGGATA TAAGCCAACA ATACAGCAAT 60  
 ACTCAAACAT TCACAGGCAA AAAAGGAAGA TACTTTTNTT AACATTTCTG AAATTCAACT 120  
 GGAAGCTTCA TGTGTCAGGA ACATCTTGGA CAAACTTTA NGTTGTGTTG ATATAAATTT 180  
 ACCCAAAGAT GATGNCTTTG ATTGGNTAAT TAGTAAGGTC TTTTGTAT TTTNCATCGT 240  
 ATCAGGTATT GTTGATATTA GAGAAAAANG TAGGATAACT TGCAACATTT AGCTCTGGAA 300  
 GTACCTACCA CATTTTNGAG ATTTACCGTT TCCATATTN 339

SEQ ID NO:3443

LENGTH:339

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04053

SEQUENCE DESCRIPTION:

GATCTGCCGT TNATGTTGCT TTCTCCTTTG TCCTCTTGGA CTTGAGGGCA TTGTGAAAAG 60  
 CTTTGCTGTG ATTTAAAAAT GCCAGCAATT TTAATCTAGC AGTGTTGAAG CTGGGAATTT 120  
 TTTGGCGCAA TCCATGTAGC AGTGACCCAG GCTTGGGAGC CAGAAACAAG TGTGACCTGG 180  
 GATTTNATTT AACACAACCTG TTGCCAAAGA GTTGGCTTTG TTTATTTGGT TTTGGCGGGG 240  
 AGAGGAGTGG TATTTNATGC TTTCTGTGGA CANTGTAACC CTAAACACAN CANGTATTTT 300  
 AANTGCCACC TACATAANTA AACCATANGC NTATTGAAA 339

SEQ ID NO:3444

LENGTH:339

TYPE:nucleic acid



TOPOLOGY:linear

CLONE:HUMGS04054

SEQUENCE DESCRIPTION:

```
GATCTACATA AAAACTGCTA CATGNCAAAA ACCACACCTA AAGAAATTTT AAGAATTTGG 60
CACAGTTACT CACTTTGTGT AATCTGAAAT CTAGCTGCTG AATACGCTGA AGTAAATCCT 120
TGTTCACTGA AGTCTTTCAA TTGAGCTGGT TGAATACTTT GAAAAATGCT CAGTTCTAAC 180
TAATGAAATG GATTTCCAG TAGGGGTTT TGCATATCAC CTGTATAGTA GTTATATGCA 240
TATGTTTCTG TGCATGTTCT CTACACAATT GTAAGGTGNC ACTGTATTTA ACTGTTGCAC 300
TTGNCAACCT TTCAATAAAG CATATAAATG TTGGTTAAA 339
```

SEQ ID NO:3445

LENGTH:334

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04055

SEQUENCE DESCRIPTION:

```
GATCAGCCTC TTCCTCTATA AACAATGACC AATTAGACGT TTCCGTAATT CCATGTATTA 60
TGTATAGTAC ACTCTATAAA TGTAATGTA ATGCTTGCTT AAAAAAGTGA ATTTATTGTA 120
CATTGTCCCA ACAAATGTTT ACTTTTATAA TCGTTATGAA CTTGAATTGG ATTAGTATCT 180
TGTTTTTATG TGTGAATGAA GCCTTGTAAT ATAAACAAAT GCAACTGAGA AGGTAACAAG 240
GTGACTGTTT TTGTGAGCCA GTGATGTTTT CAATGCTTTG TGTTGCCCTT TTGGCCCCAT 300
TAAGCAGTAA TAAACATTG TTCTGAAGTC CAAA 334
```

SEQ ID NO:3446

LENGTH:334

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04056

SEQUENCE DESCRIPTION:

```
GATCCAAAGAA GCGGGTCCCT GAGACGGGGG GTGGCTGCCC TCCCAGACC ACCCGGCAG 60
CCTGAGCAGN TCCAAAGCAC TGGCTTGGGG TCCGAGACCT TCAATGTAAA GCAGGCGGAA 120
TGGGGGGACA GGACAATTC TCCCCTCCA GGGGCTCCAG GACTCTCCCT GGGGGGCCCA 180
CCTCTTGCCC CCTAACCTCT TTCCCCTTT TCTGCCCCCG TGGGGAGGAG CCCCTTGTA 240
CTGCTCCGTG CCCAACACAT GCCCTCTCTG TACATCTTTT GGTAAATNAT GAGAAATAAA 300
GGAAGTGGAC GCAAAGTGA TGCGGCAGCA GAAA 334
```

SEQ ID NO:3447

LENGTH:332

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04057

SEQUENCE DESCRIPTION:

```
GATCCAATCT CAGTGTCTAA CTCATCATCC CAGATTATC TGAAGTGGAA ACCACCCTCC 60
GACCCCAATG GCAACATCAC CCACTACCTG GTTTCTGGG AGAGGCAGGC GGAAGACAGT 120
GAGCTGTTCC AGCTGGATTA TTGCCTCAAA GGGCGAGTCC AGTCATCAGC TCCGCTGTAA 180
```

GCTGTTGGCC CTGCATTCAA GTAACCAGAA CCACCCGTGA GAGCTGCCAC CAGGTANTGT 240  
 CACTCGAAGC TTCCTTTTTT TTTTTTTTNA ATTCCGGAAA GTTTAANTCT GTANTCCCAG 300  
 GGGNCCATTT AAANANGGTT TTTTTTGTGTA AN 332

SEQ ID NO:3448

LENGTH:332

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04058

SEQUENCE DESCRIPTION:

GATCCAAAAA AAGCTNGAAG CCTACATTTC CCAGAGCCCC TTTCAGCTTG AATTCCAAAT 60  
 GTGACTTAGC TTCCTCTATG CAGATGTACC TACTTGAAAC TGGGAAGGCC AAATNAGATA 120  
 GAGGNAATNT TTCTGCCAAC AACAGCCAC AGAGCATTTC ATTTTCTAG AAGAGCAATA 180  
 ACAGAGACCC CAGGGTGTGG TGTGGCAGGA CGAGGAGCAT CCATTTTGCT GGNGGGGATT 240  
 GTGGCTAAAA TAATGNGGCT CTGGAGCCAG CAATNGGCAG CATCTTCATG ACTTTCCAGN 300  
 TTCCAGGCTG TAAGCAGAGA TAGCATCTCT TN 332

SEQ ID NO:3449

LENGTH:326

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04059

SEQUENCE DESCRIPTION:

GATCCACTAT ATGCCCTCAGC ACATGGAACC TTAATGACCA AAGTGAAGAG CAGATTATTC 60  
 ATACGGTGTA ATAAGCATCT GGAATGGACC CATCCGTGTA CTCATTCAA ATGTGTAAAT 120  
 GTCATATTC AATCAGATTTA TAAAGCTAGT AGTGTATAGT CAGAAACAGA ATCAAAGTTA 180  
 GATATACATT TTTAAATATT TACTGCATAT GAGGCTTTCT GTTAATTTTT TAATGTGAAT 240  
 AATTTATATA TTGCACATTC TAGGGAATAA TATTGATTGT ATGNCTACTG TGCTGCATTA 300  
 AGAAAAATAA ATTCCTATAT NCCAAA 326

SEQ ID NO:3450

LENGTH:329

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04060

SEQUENCE DESCRIPTION:

GATCAGAAAA ACTGAAGATG GAAGTTTGG CCGGTGCTCA TTAGACATGA GTCCTCACTC 60  
 TGTNTCCTGA GCCCGTTTCA TTCTTCCAAC CTCCTGCCC CCACACACTT ATCCCAGACA 120  
 CAACACCATG TGGTCTGGAG GTCCCAGCCC CCACCCTAAA AAGGTTATCC CNGAGAACTC 180  
 CACCAGACTT GGGAGCCCAA GTGCAGTGCC TGGNGCTGCT CCCATCTGCC GGCCCCNTTC 240  
 TTTCTNGCA ATGGTTTGN ACTCACTGGG CTGTGCTCTN CCCTGTTTAC CCGATGNNNG 300  
 GGAAATAAAG GCCCTTTTGC CTCCTGAAA 329

SEQ ID NO:3451

LENGTH:325

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04061

SEQUENCE DESCRIPTION:

GATCTGGCGC TTCTACTTTG AGGGCTTCTT TGACCTCATT GCTGTGGTAN GCCGGCGTAG 60  
TCCAGACCAT CCTATACTGT GACTTCTTCT ACTTGACAT TACAAAAGTA CTCAAGGGAA 120  
AGAAGCTCAG TTTGCCAGCA TAAGTGCCAA AGGCCATCAC CAGCATCTGT CCTTCAGGGT 180  
GCTCGGACAG ANTTNTTACC ACAGCAANGG CATAAGGTGC TTTATACGGA AANTCAGNAA 240  
CTTAACTCTT TTGTTGCAGN TAGTCATCAG TGGCTCTGTA AAAACGGAGG GGGAAAGNGN 300  
CNGGAGGTTT CTGTTTAATG CATCN 325

SEQ ID NO:3452

LENGTH:324

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04062

SEQUENCE DESCRIPTION:

GATCTGATTT TATGTTGTA ACTTTCTGTA AAGAAAGACA CAAGGACTTT TCAAAGACAG 60  
TTTATATCTT TCCAAGGCAG GAAGCTTTGC ATTTGCAATC TTAGTGTTGT GTCCCTTCT 120  
GATTTTCAAA TACATCACAC CTGCCTTCCT GTTTTGGGAG CAAAGATGTA ATTTCAATTC 180  
CCCTTGCTAC CGTCTTATT TAAATNATTT CCATTCTAAG AGATTTTNGT NATTTNNNTA 240  
AATGTAATCT GAGCACTTNN TNGTATTCTA AAAGATAGAT GATATCAGAT AAATATGTTG 300  
TACATTTTGA TTAATAATTAT TTTN 324

SEQ ID NO:3453

LENGTH:339

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04063

SEQUENCE DESCRIPTION:

GATCTGGAAG ACAGACGTAC AGCTTGGAGG GCAGGGGGAC TCTAAGGCAA GGAGATTTAC 60  
AGTTGGGAAG GAGGCAGTGG CAGAGGGGTG AGGGACAGGG GCCCTTAAGT CCAGCGAGGA 120  
AAGCTCNNTG TGGGCCCGCT CTACGCTCCG TTTGGGGTGA CCTGGAACGC CTCTTCTCCC 180  
AGCTCCCTCC AGCCATCAGC AGCCTCTGT CAAGCTTCTG CCTCGCCCCA GTCTATCCCC 240  
AACCCCAAAT CAAGACCACC TTTCTTCAGG GTCATATTT ATTCTTTGTT CCTTTTCTT 300  
TTTGTAAGAA ACATTCACAA AAACCAGTGC AAAACCAAA 339

SEQ ID NO:3454

LENGTH:317

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04064

SEQUENCE DESCRIPTION:

GATCTCAATG CTGTCTGGGG ACCCTGAAGA GTTTNTNAC CTGTTGAGTC TCATCTAACC 60  
TTCCAATGTN TGATGTTCTT GCCAAATTCC TGCCTGATTC TGGGTCCGTC CTGACCTCCA 120

AAGGTCAGNT TGGTGCTGA GGTCTCCNTG CTCTTGGTGG CAGTGGTAGC AGCAACAGCA 180  
 GCAGCAGCAG CAGCAGCAGC AGCAGAGACC TNTCCACTTT CCCTTAGCCC TNTGNTGGGT 240  
 AGAGGGAACT TAAGGGACTT CCTCCAGNNG CNTTTAATNT GGGAAATGGGT AAGAAGGTTG 300  
 NGCTCCNCTG TTNGTTN 317

SEQ ID NO:3455

LENGTH:315

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04065

SEQUENCE DESCRIPTION:

GATCCTCAAA AAACCCAAAA ACACCATTCT CTAATAGTCA TGACAAATGG CTTCAGTATG 60  
 GCTTGTTTT NATTTNCCAG ATGGCTTTT CTCTTATTT TNGAAGCCCC AGTCTTTGAT 120  
 TTTACAGGTA ACTTTCAAAA CATCATGATG CTGCCAAATG TACTTTTGTA AACTTAAACA 180  
 TTATGATTCC TGTATTATTT CAGTGAGAGC TACAGTGTGA TATNCAGAG TCTATTAAAT 240  
 AAAAATGTGA GTTTGAATTA CACCATCTGT GCCAATTACA AAGCAATTAA AGGATTTATN 300  
 TNTNATGAAA AAAAN 315

SEQ ID NO:3456

LENGTH:312

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04066

SEQUENCE DESCRIPTION:

GATCTGAGGC TGTGTCTCTG CCTTGTTTT AGAGGACTTC AGCGTCCAAG ACTGGGGCCC 60  
 ACCNTTNTCA CCAGCACTAA ATGCACTAAC AAGGACTCCA GACCTGCAGC CCCAGACCCG 120  
 CCGTAGTATA AGCCTAACAA GCAACANGTA GCACCTTAGT CTTTGTTCGA GGAGAGCTGA 180  
 GCAAGCTGGT GAAACCACTC TCCTTCCTTT AAACANCGTT TCAACCANCC TTTNCNTGGA 240  
 GCCAACNTGT AAAAAGTGGG TTGATTGCTG ACAGNATGGT CTTCTTCCC TGGATTNAG 300  
 ACATACCAGT TN 312

SEQ ID NO:3457

LENGTH:309

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04067

SEQUENCE DESCRIPTION:

GATCTTTCCG GGGCCTACAG GCGTGAAGA CAGCTTGGTC TGGTCTGTGC AGAAGTGGGG 60  
 AGTGATGGGC AGGTTCCGCA GCCTAACATT GTTCAGGCGC ATGGCCCCTG CGGTGTGTAC 120  
 ACGAACTCGG CTTCTTTTGT CTTAGGTACG CCAAGGGCAG GTTCTGGAG ACTCCCTTGT 180  
 GCGGGGATG GCAAGGGCAC CGGGCTGGCG TTTCCACATC TGTCTTCATT AGCAGANNAG 240  
 TGATGATGGA TTTTATTTC CTCACACTCC AGTTTGTAAT AAAATGCCAA ATTCTGTCAG 300  
 CTATCCAAA 309

SEQ ID NO:3458

LENGTH:309

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04068

SEQUENCE DESCRIPTION:

GATCAGCACC ATTTGTGGTA TGTTCCGTGA TGAGCGTTTA GTGAGCCTNN TGGCTGCAGA 60  
GCACTATGAA ATCATGGTAC GTAGTCCCG GCACCTGTCG TTATTCCTAT ATCCTCCTGC 120  
AACTGTGGTT TGAAACTGCG CATTCTCTAG TAGTATATAT CGTGCCTGTC TTCAAAAACA 180  
TTTCCCTTNN GTATACTCAT NCCCCCAGG CATTGGGGTA GTGTCAGTCG GACTGCACAG 240  
GGAACACGGT TTCCAGTGGC TTTGGCCCCT ACTCGGGAAA CGTCTGCCTG TTCTCGATNG 300  
TGATGGGGN 309

SEQ ID NO:3459

LENGTH:308

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04069

SEQUENCE DESCRIPTION:

GATCTAGCTG GTCACGACGA TGTTTTCACC AAGGTCACAG GAGCATTGCG TCGCTGATGG 60  
GGTTGAAGTT TGGTTTGGTT CTTGTTTCAG CCCAATATGT AGAGAACATT TGAAACAGTC 120  
TGCACCTTNN ATACGGTATT GCATTTCCTA AGCCACCAAT CCATTTTNTG GATTTAATGT 180  
GTCTGTGGCT TAATAATCAT AGTAACAACA ATAATACCTT TTTNTCCATT TTGCTTGCAG 240  
GAAACATACC TTAAGTTTTT TTTGTTTTGT TTTGTTTTT TTGTTTTTNG TTTTCCTTTA 300  
TGANGAAA 308

SEQ ID NO:3460

LENGTH:351

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04070

SEQUENCE DESCRIPTION:

GATCAAGCAG AGAAANTAAT TAATTTTCATG GGAATAATG AACTAGTGAG GATAATATTT 60  
NCATAATTNT TNATTTGAAA TTTTGCTGAT TCTTTAAATG TCTTGTTC CAGATTCAG 120  
GAAACTTTTT TCCTTTTAAG CTATCCACAG CTTACAGCAA TTGATAAAA TATACTTTG 180  
TGNACAAAAA TTGAGACATT TACATTTCTT CCCTATGTGG TCGCTCCAGN NCTTGGGAAA 240  
CTATTCATGG AGTATTTNTA TTGTATGGTA ATATAGTTAT TGCACAAGTT CANTAAAANT 300  
CTGCTCTNTG TATAGCANGG NNNGGGTTGG GGGGGCGGGN GGNGGGGGG N 351

SEQ ID NO:3461

LENGTH:305

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04071

SEQUENCE DESCRIPTION:

GATCAGATAG TTTCTGAGG CTAAAATGCC CCAACATGTA AAAGACTGCN ACAAGGGTTA 60

ATGAGCCAGG AACTGCCGAT GGTAACCTAC ATCTCTATAA TTACCATAGG ATATATATGA 120  
 GTACCATAGG ATTCTTTTGC ATAACTGTAG AAAGTACAGA CAACACCCTC CCGTGTTC 180  
 TATTAGAGTT TTTANTGTTG ATTGGAAAAT GGGAGATTCA CTGTGTGCCA TTCTTGGTAT 240  
 ACGTTGANGA AATTACATCA CTAGTACACA CNGNGGNNNT TCCACATTCA CACGCCCCAG 300  
 CTCTN 305

SEQ ID NO:3462

LENGTH:303

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04072

SEQUENCE DESCRIPTION:

GATCAAGCTA CAGATATGGG ATACAGCAGG CCAGGAGCGA TTTCACACCA TCACAACCTC 60  
 CTACTACAGA GCGCAATGG GTATCATGCT AGTATATGAC ATCACCAATG GTAAAAGTTT 120  
 TGAAAACATC AGCAAATGGC TTAGAAACAT AGATGAGCAT GCCAATGAAG ATGTGGAAAG 180  
 AATGTTACTA GGAACAAGT GTGATATGGA CGACAANNGT GTGTACCTA AAGGAAAAGG 240  
 TGANCAGATT GCNNGGGAGC ATGGTATTAG GTTTTTTGAG ACTAGTGCAA ANGCGGTAT 300  
 AAN 303

SEQ ID NO:3463

LENGTH:303

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04073

SEQUENCE DESCRIPTION:

GATCCGGTCA TACATCCACA TCAGGCCTGG CCAGCTGGAT GTTCTTAAAN AGTTCACAA 60  
 GCAGATTACT GCACGGGCAA CAAAGGATGG GACTTTTGTC ATTTCAAAGA CATGATGTAT 120  
 GGGGATTAGA AAGAACTCAA GACACTCTG CTTGATACAG AACAAAAAGA GCTTAACAGG 180  
 ACCAACAGGG CTTAAGCCCA GACTTGACGT AACAGAAATG TGCCAATAGG TAATAGGTAA 240  
 TTTNCTTTC TCTGACTGT TTTGTTTCT TGAAATAACA CTGTTGTGTG GCTAGAAAGG 300  
 AAA 303

SEQ ID NO:3464

LENGTH:348

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04074

SEQUENCE DESCRIPTION:

GATCTACTTT CACATTCTCA AGTTTTNTC ATCTGCATTA GAGGTGCCCA GTAGGTTCCC 60  
 AGGTTCCAGC GTGCCCTCC CTCAGACACA CGGACACAAT CAGCCGAGAA GTTCCTGGTC 120  
 TGAATCACGA GAATGTGGAG GGGTGGGGG TGTCAGTGA AAGGCATAAG GCTGAGCTGA 180  
 GACCAGTTGC TGGTGAACCT GGGCCAATCT GGGGAGGGGA ACATCCTTGC CAGGGAGTTT 240  
 CTGAGGTCT GCTTTGTTA CCTTTCGTGC GGTGGATTCT TTTAACTCC GTCTACCTGG 300  
 CGTTTTGTGA GAAATGTCAG ATAGGAAAAT AAAAACCATT TGAGTAAA 348

SEQ ID NO:3465

LENGTH:299

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04075

SEQUENCE DESCRIPTION:

GATCTGACCT GGTGAGATTA TTTCTNATGA CCTCATCAAA AAATAAACAN TTCCCAATGT 60  
TCCAGGTGAG GGCTTTGAAA GGCCTTCCAA ACAGCTCCGT CGCCCTAGC AACTCCACCA 120  
TTGGGCACTG CCATGCAGAG ACGTGGCTTG GCCCAGAATG GCCTGTGCCA TAGCAACTGG 180  
AGGGCATGGG GCAATGACAG ATACANCAGA ACANTGCTTT TGAGGCANGC TTCTCCCTN 240  
GNGGGTNGGT TGTNATGGCC NTGGCTTTTT NAGTTGGGNG NCATTANAT TAAGGTTN 299

SEQ ID NO:3466

LENGTH:415

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04076

SEQUENCE DESCRIPTION:

GATCTACGTN ATCTCAGGGC AGTTCCTACA GATGAAGCAA GAGCTTTTNC AGAAAAGAAT 60  
GGTTTGTNAT TCATTGAAAC TTCGGCCCTA GACTCTACAA ATGTAGAAGC TGCTTTTNAG 120  
ACAATTTTAA CAGAGATTTA CCGCATTGTT TCTCAGAAGC AAATGTCAGA CAGACGCGAA 180  
AATGACATGT CTCCAAGCAA CAATGTGGTT CCTATTATG TTCCACCAAC CACTGAAAAC 240  
ANGCCAAAGG TGCAGTGCTG TCAGAACATC TAAGGCATTT NTNTTCTCCC CTAGAAGGCT 300  
GTGTATAGTC CATTTCCCAG GTNTGNGGAT TTAAATATAT TNGTAATNCT NGGTGTCACT 360  
TTTGGTGTTC TATNACTTCA TACTTATGNN TTTTCCATG NCCTAAGNCT TTTN 415

SEQ ID NO:3467

LENGTH:295

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04077

SEQUENCE DESCRIPTION:

GATCCACCTT CTTCTTAGG TCCCTCCTC CATCAGCAAA GGAGCACTTC TCTAATCATG 60  
CCCTCCCGAA GACTGGCTGG GAGAAGGTTT AAAAACAAAA AATCCAGGAG TAAGAGCCTT 120  
AGGTCAGTTT GAAATTGGAG ACAAACTGTC TGGCAAAGGG TCGGAGAGGG AGCTTGTGCT 180  
CAGGAGTCCA GCCGTCCAGC CTCGGGGTGT AGGTTTCTGA GGTGTGCCAT TGGGGCCTCA 240  
GNCCTTCTCTG GTGACAGAGG CTCAGCTGTG GCCACCAACA CACAACCACA CACAN 295

SEQ ID NO:3468

LENGTH:292

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04078

SEQUENCE DESCRIPTION:

GATCAAAGCA CTGGGCTTGT CCAGGCNCAT AATAAATGCT CCATTGAANG TACTATTCTN 60

GTTTTCCACT GCTGTGGAAA CCTCCTTGCT ACTATAGCGT CTTATGTATG GTTTAAAGGA 120  
 AATTTATCAG GTGAGAGAGA TGAGCAACGT TGTCTTNCCT CTCAAAGCTG TAATGTGGGT 180  
 TTNGTTTTAC TGTTTATTTG TTTGTNGTTG TATCCTTTTC TCCTNGTNAN TTGCCCTTCA 240  
 GAATGCACTT GGGAAAGGCT GGTTCCTTAG NNNCCTGGTT TGTGTCTNTT NN 292

SEQ ID NO:3469

LENGTH:291

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04079

SEQUENCE DESCRIPTION:

GATCTCTTAA GAGATGATGG ACTTATGTAT GTTACAAGAC TTCGAAATGT TGGAGTCCAA 60  
 GTNGTTCATG AACATATTGA GGATGGAATT CATGGAGCTT TATCATTCAT GACTTCACCA 120  
 TTTTATTTAC GTCTAGGTCT TAGGATAAGA GATATGTATG TAAGTNGGCT GGATAAGANT 180  
 TTATAAATAT GTGATGTGTA TGTATAGCCC TTACATAGTG GATTGTAATT NGTGATATTT 240  
 TGTGGTTTTG GAGCAAAGAN CAATGTCATT TGAGTTATCT AAATCTACAT N 291

SEQ ID NO:3470

LENGTH:290

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04080

SEQUENCE DESCRIPTION:

GATCTTTTGA TTCCTCTTGG GCTGAAGCAG ACCAAGTTCC CCCAGGCAC CCCAGTTGTG 60  
 GGGGAGCCTG TATTTTTTTT AACAACATCC CCATTCCCA CCTGGTCCTC CCNCTTCCA 120  
 TGCTGCCAAC TTCTAACC GC AATAGTACT CTGTGCTTGT NTGTTTAGTT CTGTGTATAA 180  
 ATGGAATGTT GTGGAGATGA CCCCTCCCTG TGCCGGCTGG TTCCTCTCCC TTTTCCCTG 240  
 GTCACGGCTA CTCATGGAAG CAGGACCAGT AAAGGGACCT TCGATTAAAA 290

SEQ ID NO:3471

LENGTH:287

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04081

SEQUENCE DESCRIPTION:

GATCCAAAGT CCTGTGGTTA ACGCCTTCAT TTATAGATGA GGCAGCTGAG GCCTGGGGAT 60  
 GTGAACAACC TGCTCACAGT CCTCATTTAC TGGATTTGAC TTCAGCCAGG TGAAGTGGAA 120  
 TGCCTTGGGG CGTGAAGGG CATTAGGAGT GTTTCATTTG ATATGTGAAT GCTCATAAAA 180  
 AAATGTCAAG GAATGAAGAA CAGCANCTCT CAGTGGTGCC TGCATTTATA ATTATTTATG 240  
 TGAAAGTCAA ATTCATGTAC AGTAAATTTG TTATAAGAAT ATTCAAA 287

SEQ ID NO:3472

LENGTH:287

TYPE:nucleic acid

TOPOLOGY:linear



CLONE:HUMGS04082

## SEQUENCE DESCRIPTION:

GATCCAAAGT GCAAGGNTTT GATTATAAAC ATAATTCCT AGACTGAAAG TTTTGGAAA 60  
 AGATGCAGGG TCTGAGTCAG GCCTTCTGGT TATATTGTGC AGTTTCAAAA GAACTATTTA 120  
 ANACTCTTGA AAACATCATGT AAATAAAAAT CATAGGGTGA AAATTGTATT TGTTAAAATA 180  
 CCTTAATAAT TTAAGATGAC CTGATTCCT GGAAAATTT ATTATTCAA AGGTGGAGGC 240  
 ATTGTAAGAAA GGAATAGTG ATGTAAATAA ACATGTTCTC TTTCAA 287

SEQ ID NO:3473

LENGTH:278

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04083

## SEQUENCE DESCRIPTION:

GATCTGTTTG TCACTGACAG ACTGTAGTAG TGTCTGTGTG CTGACTGATA GATAGACTAT 60  
 AGTAAATTT GGGTGTGCCC TGACTAACGG TCTAGGGTCT GTAAGCTGAC AGTCTGCCTG 120  
 CTTTCTGATT GTATCCATTG AAGTGTATGT ACATTATGGT AATNCTCTGT CTATTAAATG 180  
 TGTCTAACAA AGGAAGGAAT TAAGCACTCC ACATGTTTC TTTATAGGGG AGTTCTGTAC 240  
 ACTATGATTT TAAATAGATA TTTCTTATAT AANGGAAA 278

SEQ ID NO:3474

LENGTH:278

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04084

## SEQUENCE DESCRIPTION:

GATCCCAACA CTGAAGGGGT AGAAGGCCAG GGGGGCATGG AGAGTGCAGC TCCATTATAG 60  
 TGAAGAGCCA AACATATGTN AACTGTTTGC TGTGTGGAGG TGTTAGTTCT GCTGCCTACC 120  
 ATCTTCATCT CTAGCACCTC CCCTGCCAAG AGTCAACCAC TAAGCAATCC CACCCAAGCC 180  
 TGGATGCTTC TAGAGGGGCC CACTCCCAGC TGGGAGAGTN TAGGGGATAT GCTCACACCA 240  
 CATTAGCAGC AACCAATAAA AATGCTGGAA ACAAGAAA 278

SEQ ID NO:3475

LENGTH:277

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04086

## SEQUENCE DESCRIPTION:

GATCTTAAC TGTTCATTTG AAACCTGTG CGTTTGAAGT GGTGGAGACA GGACCTTTAT 60  
 CATATTCTGA GCTTTAAATA TATAAACNGG TAAATCATTC CATTTAATAA GACATAGCCC 120  
 AAGTCCCAGA ACGCGTTTTG AGAGTAACCA GAAACAGAGG TTATTTGTTC TGCTTTCTTT 180  
 TATCACTGCT ATTTGGATGG ATATCCCAA CAAGTGGATG TGCGCCCAA TTCTATTTTC 240  
 CACTATTCAA TGATTAAAT AATTACAAA ACGCAA 277

SEQ ID NO:3476

2153480

LENGTH:273

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04087

SEQUENCE DESCRIPTION:

GATCTTTCCA AATACCCAAA TGTCCCTGCA AGCCCGTTAA ATAATTCCT ATGCTACCCT 60  
TAATAACATA CAATGACCAC ATAGTGTGAG AACTTCCAAC AAGCCTCAAA GTCCCTTGAG 120  
ACTCCCAAT ACCTAATAAG GCATGCGAAA TGTTCATG AACTACCCA CAACACGCCT 180  
AAACTCAAA ACACCCAAA ATATNTCTC CAATGTCCTG AAACATGAAC CCAAAAAGAG 240  
ACCCACAATA AACTCGTGAC TTGTCCNCTC AAA 273

SEQ ID NO:3477

LENGTH:272

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04088

SEQUENCE DESCRIPTION:

GATCCTCTCN ACCCTCCTCT AGCCATCCCT TGGGGAAGGG TGGGAGAAAN TATAGGATAG 60  
ACACTGGACA TGGCCCATG GAGCACNNGG GCCCCACTGG ACAACTGA TTCCTGGAGA 120  
GGTGGCTGCN CCCCAGCTT CTNTCTCCCT GTNACACACT GGACCCACT GGCTGAGAAT 180  
CTGGGGTGA GNGGACAAG AAGGAGAGGA AAATNTTCC TTGTGCCTGC TCCTGTACTN 240  
GTCTCAGCT TGGGGNTTCT TCCTCCTCCA TN 272

SEQ ID NO:3478

LENGTH:270

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04089

SEQUENCE DESCRIPTION:

GATCTTGATA TTNGCCTCT TTGAAGAGAC AGCCCTGGCT GCTTCTCCTNN CCTACTGCC 60  
TGGAATGGGT GTTNTCTTA GGATGTATCC CCTCAACCT ACCTGGTGGT TCTTGCCTT 120  
CCCCTACTCT CTTCTCATCT TCGTATATNA CGAAGCAGAA AACTCATCAT CAGGCGACGC 180  
CCTGGCGGCT GGTGGAGAG GGAAACCTAC TATNAGCCCC CCGTCCTGCA CGCCGTGGAG 240  
CATCAGGCCA CACTCTGC ATCCGACACN 270

SEQ ID NO:3479

LENGTH:267

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04090

SEQUENCE DESCRIPTION:

GATCACCAAC AGGGAAGAC ATCCTGTTT TTTTGATGTG GTGCATGTGA AGGATGCCAA 60  
TGCCAACAGC TTGCCACGA GGCTTTCAA CATTTTGTG ATTGGCAATG GCAATAAACC 120  
TTGGATTTC CTGCCAGGG GAAAGGGCAT TCGACTTACT GTTGTGAAG AGAGAGATAA 180  
GAGGCTGGCC ACCAAACAGA GCAGTGGCTA AATTGCAGTA GCAGCATATC TTTTCTT 240

01157

TGCACAANTA AACAGTGAAT TCTCAAA

267

SEQ ID NO:3480

LENGTH:263

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04091

SEQUENCE DESCRIPTION:

GATCCCTGGA GTGCCTTGGT GTTCAAGCC CCTGCAGGAA GCAGAATGCA NCTTNTGAGG 60  
 CACCTCCAGC TGCCCCCGGC CGGGGGATGC GAGGCTCGGA GCACCCTTGC CCGGCTGTGA 120  
 TTGCTGCCAG GCACTGTTCA TCTCAGCTTT TCTGTCCCTT TGCTCCCGGC AAGCGCTTCT 180  
 GCTGAAAGTT CATATCTGGA GCCTGATGTC TTAACGAATA AAGGTCCCAT GCTCCACCCG 240  
 AGGACAGTTC TTCGTGCCTG AAA 263

SEQ ID NO:3481

LENGTH:257

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04092

SEQUENCE DESCRIPTION:

GATCGGGAAC AAATGNAATC TGTGGATGCA TCAAGCTATC GTCAGTCAAA CCCCTTTAAA 60  
 ATGTTGCTTT GGCTTTGTAA ATTTAAATAT GTAAGTGCTA TATAAGTCAG GAGCAGCTGT 120  
 CTTTTTAAAA TGTCTCGGCT AGCTAGACCA CAGATATCTT CTAGACATAT TGAACACATT 180  
 TAAGATTTGA GGGATATAAG GGAAATNAT ATGAATGTGT ATTTTACTC AAAATAAAAG 240  
 TAACTGTTTA CGTTAAA 257

SEQ ID NO:3482

LENGTH:255

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04093

SEQUENCE DESCRIPTION:

GATCTACATT TTGTACATAT TTATATAAAA TTTACCTTTA AGTATTTACT TTAAAAAATT 60  
 TAATGGCTTA ACTCGAATT GAAGACACAT ACTTCAACTG TCCTTATTGT CCATTAAACT 120  
 GATAATTTN ATTTTCCTNG CTTTATAGA TTTNNCTATA TAGGAATCAA GATTANGAA 180  
 ATTTTGCAAT AAAANTAGTG TACCAATGCT TCATATACGT TAGTTATTG CTATTATGTA 240  
 GGGAAGAGGA TTGTN 255

SEQ ID NO:3483

LENGTH:255

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04094

SEQUENCE DESCRIPTION:

GATCTGAAAT NAGAAATATC CAACATTGCA CGAGTATCTT TTTTATNCC TCCACAGACT 60

CCGCCAGAGA CACCTAGTCC TGATGAAACG TCTGCTCCTT GTCCTAATAT TCATATCAAC 120  
AGCACCATTC CTGGCATTCA CATTTTAAAA ATTATGTGGA AGTGGATAGG AGAACTGCAG 180  
CTGTCAATAG CCTAGGGCTG AATTTTGTGC AGNTAANTAA NATAAATCAT TCATCCTTTT 240  
TTTTNGNTTT ATAAA 255

SEQ ID NO:3484

LENGTH:253

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04095

SEQUENCE DESCRIPTION:

GATCTAGGTG GTTTGTAATT GTGCATTACT GACTGCATAT GTTTGTGTAT GTGTAAATGT 60  
GGGCTCCCTG TTAAGTGGGG CTCATGGATA CGAGGCCTGA GGAAGTGTGG CTTGCTAGTC 120  
TGTTACGTTA ACATGCTTTT CTAATATTGC TTCACGTGTT AATTCATTTA CTCCTGCATT 180  
CATTGACTGT TTTTGTCTT TTCCATTAC TTTGTACTTA TTTTTCAT TAAATTTTGC 240  
ATTTATTTG AAA 253

SEQ ID NO:3485

LENGTH:251

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04096

SEQUENCE DESCRIPTION:

GATCCTAGTT CCTTCCTTCC CGAGTGATAC CCATGAACTG CCAGTAGAGG CTGCTATCGT 60  
TCCATGTGTA AGGAATGAAC TGGTTCAAGG CGCGTCCTAC CCAGTCATT TCTTTACCTT 120  
ATACTAATTC TTCCTGAATA ATGTCTTCAAG TTTCTTGAGG AGACTCCTAG TTTTGGTTTT 180  
CAAATACTT GGAGGGCTGC CTAGGAATCT ATCTCCCTCT GAAATAAAGT TTCCTCATCT 240  
TCCACNNTAA A 251

SEQ ID NO:3486

LENGTH:249

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04097

SEQUENCE DESCRIPTION:

GATCATACGG CCTTCCAGGA GACGCTGGGA TGTAAGATAC TCTTGGAGGN TGGCTCTGAA 60  
CTCGGGTGTC TGAATCACAG GGCAAGGGTA GGCGTGGGCT GTGGCTAACA GCAGAGTCAC 120  
TTCCCTGGCC TAGCTTGGGG ACCTGGGGAG GAGGAGGTAG CTCTGGACAC CAGGGTTCTT 180  
CCCATTGTGG GAGAGTNAGT TTTTATGGGG GAGACCTGTC CCCAGATTA AAGAACTGGG 240  
AGCCCTAAA 249

SEQ ID NO:3487

LENGTH:248

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04098

## SEQUENCE DESCRIPTION:

GATCAAAGAA GAGAGTAAAG CTATGTCTTC AATTAAATTT CAATACCTGA TTTGTACTTT 60  
 CCTTGAAAGC TTTACTTTAA AATACCTTAC TTATAGGCCT GGTGTCATGC TATAAGTATG 120  
 TACATACAGT TTCACCTCAA AAATAAAAAA AAANTCCCTA AAANCTCTCT ATACTCTCTA 180  
 TAACANTNCT TTATCANGAN CTCTGGNCAA TGGTATTATT TNGGANANTC ATGGTGATGT 240  
 ATTTNTNN 248

SEQ ID NO:3488

LENGTH:245

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04099

## SEQUENCE DESCRIPTION:

GATCTGTGTT GTAGAACATG AGGGTGTAAAG CCTTCAGCCT GGCAAGTTAC ATGTAGAAAG 60  
 CCCACACTTG TGAAGGTTTT GTTTTACAAA TCACTTGATT TAACACACTC AGGTAGAATA 120  
 TTTTAATTTT TACTGTTTTA TACCCAGAAG TTATTCTAC ATTGTNCTAC AGCAAGAATA 180  
 TTCATAAAAG TATCCCTTTC AAATGCCTTT GAGAAGANTA GANGAAAAAA AGTTTGTATA 240  
 TATTN 245

SEQ ID NO:3489

LENGTH:246

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04100

## SEQUENCE DESCRIPTION:

GATCCTGATN ATATTTGGCA GCTGTCCTCC AGTCTTAAAA GGTTTGATGA CAAATACACC 60  
 TTGAAGCTGA CCTTCATCAG TGGGAGAACA AAGCAGCAGC GGGGAAGCCGA GTTCACAAAG 120  
 TCCATTGCTA AGTTTTTTTG ACCACAGTGG GACACTGGTC ATGGATGCAT ATGNGCCTGA 180  
 AATATCCAGG CTCCATGACA GTCTTGCCAT AGAAAGANAA ATAAAGTAGC CACTTCTANA 240  
 AGTAAA 246

SEQ ID NO:3490

LENGTH:239

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04101

## SEQUENCE DESCRIPTION:

GATCCTGGGT ACTGAAAGNC TTAGGGAAGC TGGCCTGAGA GGGGAAGCGG CCCTAAGGGA 60  
 GTATCTAAGA ACAAAGCGA CCCATTGAGA GACTGTCCCT GAAACCTAGT ACTGCCCCC 120  
 ATGAGGAAGG AACAGCAATG GTGTCAGTAT CCAGGCTTTG TACAGAGTGC TTTTCTGTTT 180  
 AGTTTTTACT TTTTTTGTGTT TGTTTTTTTA AAGATGAAAT AAAGACCCAG GGGGAGAAA 239

SEQ ID NO:3491

LENGTH:239

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04102

SEQUENCE DESCRIPTION:

GATCTGGGGA AAGGAGAGAC CATGGTGTGA ATGTAGAGAT GCCACCTANC TCTCTCTAAG 60  
GCAGGCCTGT GGATGAAGGA GGAGGGTCAG GGCTGGCCTT CCTCTGTNCA TCANTCTGCT 120  
AGGTTGGGGG CCCCNGNCCN NCCATACCTA CGCCTAGGGA GCCCGTCCTC CAGTATTCCG 180  
TCTGTAGCAG GAGCTAGGGC TGCTGCCTCA GCTCCAAGAC AAGAATGAAC CTGGCTGTN 239

SEQ ID NO:3492

LENGTH:244

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04103

SEQUENCE DESCRIPTION:

GATCTGTGTT TCCTCCCCAG TCATCTTTCT TGTTCAGAG AGGTGGGGCT GGATGTCTCC 60  
ATCTCTGTCT CAACTTTATG TGCAGTGAGC TGCAACTTCT TACTTCCCTA CTGAAAATAA 120  
GAATCTGAAT ATAAATTTGT TTTCTCAAAT ATTTGCTATG AGAGGTTGAT GGATTAATTA 180  
AATAAGTCAA TTCCTGGAAT TTGAAAGAGC AAATAAGAC CTGAGAACCT TCCAGAATCT 240  
GAAA 244

SEQ ID NO:3493

LENGTH:235

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04104

SEQUENCE DESCRIPTION:

GATCCATAAA AGATTGTATT TTTATTACTA TTAAACAAG TGATTAAATT TAGTCTGCAC 60  
ANNAGCAAG GGTTCACATG CATTCTTTA TACTGCTGGA TTTGTTGTG CATCATTTAA 120  
AACATTTTGT ATGTTCTNC TTATCTGTGT ATACAGTATG TTCTTGAATG ATGTTCAATT 180  
GTCAGGAGNN CTGTGAGAAA TAACTATGT GGATACTGTC TGTTTATATT ATAAA 235

SEQ ID NO:3494

LENGTH:233

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04105

SEQUENCE DESCRIPTION:

GATCGACTGT AAATAGAGGA CTTCTGGAAC ATTCAAATA TTCTGGGGTT GAGGGAAATT 60  
GCTGCTGTCT ACAAATGCC AAGGGTGGAC AGGCGCTGTG GCTCACGCCT GTAATCCCAG 120  
CACTTTGGGA GNCTGAGGTA GGAGGATTGA TTGAGGCCAA GAGTTAAAGA CCAGCCTGGT 180  
CAATATAGCA AGACCACGTC TCTAAATAAA AATTANTAGG CCGGCCAGGC AAA 233

SEQ ID NO:3495

LENGTH:243

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04106

SEQUENCE DESCRIPTION:

GATCATGGAG ACCTGGCTGG TAGCTGTAAC AGAGATGGTG GAGTCCAAGG AAACAGCCTG 60  
TCTCTGGTGA ATGGNACTTT CTTTGGTGGA CACTTGGCAC CAGCTCTGAG AGCCCTTCCC 120  
CTGTGTCCTG CCACCATGTG GGTCANATGT ACTCTCTGTC ACATGAGGAG AGTGCTAGTT 180  
CATGTGTNCT CCATTCTTGT GAGCATCCTA ATNNNTCNNT TCCATTTTNA TGACAGGANG 240  
AAA 243

SEQ ID NO:3496

LENGTH:231

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04107

SEQUENCE DESCRIPTION:

GATCCAGAAC TGAGGTCACT GGGTTCTAGA ACNGNNACAT TTACCTCGAG GCTCTTCCAT 60  
CCCCAACTG TGCCCTGCCT TCAGCTTTGG TGAAAGGGAG GGCCCTCAT GTGTGCTGTG 120  
CTGTGCTGTC ACCGCTTGGT TTGCAGTTGA GAGGGGAGGG CAGGAGGGGT GTGATTGGAG 180  
TGTGTCCGGA GATGAGATGA AAAAAATACA TCTATATTTA AGAATCCCAA A 231

SEQ ID NO:3497

LENGTH:231

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04108

SEQUENCE DESCRIPTION:

GATCTGCAGC CAGGCCTTTC TGAAGGNGTT ATTCTGNTAA AAATGGTCTN AGTTNTCTGA 60  
AAAGCCAGCT CTTGAACCTC TTCACAACAG TATCAACACT GGCTTCTCCC GGTTCATNTT 120  
ATGCGTCCGA GAAGTCAGTG GTAACNTCTG CAGGGCTTAA TACATTAGTG GTAACGGTT 180  
TAAAAAACAA AGACTGTAAG CCTGTGTGTG CCACTGNNNG CTTCAACNGN N 231

SEQ ID NO:3498

LENGTH:224

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04109

SEQUENCE DESCRIPTION:

GATCCCAGTT TGCAGCAAAC CCCACACCCC AGCTCACACA GCAAAAACAA TGGACAGGCC 60  
CAGAGGGTGA AGCAACAGT GTCCCTTCTG GCTGTNTTGG AGCCTCCCA GTAACCACCT 120  
ATTTATTTNA CCTCTTTCCC AAACCTGGAG CATTATGCC TAGGCTTGTN AAGAATCTNT 180  
TCAGTCCCTC TCCTTCTCAA TAAAAGCATC TTCAAGCTTG TAAA 224

SEQ ID NO:3499

LENGTH:294

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04110

SEQUENCE DESCRIPTION:

```
GATCGGGAAC AAGCACGTTG TACCCTTGGC TGGACATGGC CAAGACACAA GGCATTCCAC 60
GGCGGCAAGC TGACCGCACA GCAGTCTGGC TTGATTTTCA GCCGTCATCA TTGGGTTCTG 120
TTTTGACAGC TCTGCTGCCC ATAGGGACTG CGACTGGGNC CAGGTCAACC ACGCCAGGGG 180
GGTGTACCA GCCTTTTCTT TTTTNCCTTC TTTTNTTTT TTCCCCCCTA AAGTTGTNNN 240
AAAGCNAANC CNTGGGAATA ATGGTTTNTT TGGANTNAAA CCCANNATTT CAGN 294
```

SEQ ID NO:3500

LENGTH:221

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04111

SEQUENCE DESCRIPTION:

```
GATCCAAGTT TGATAACATT GGCATGAATG CCATGGCTAA CAAAGATAAT GCAAGTNTCA 60
AACAGCTTAG ATGGGAGGCT GAACGTGATG ACTGGCTACA CAACAGAGAT GCAAAANGTA 120
TCATCAGGAA AAGGAAACAT TTAAAANGA AGAGGNTTAA AACCCTCAA AAANCTAAAA 180
NCCAAGGGAA ATGAGTTATT ANTGTAANTN ATAGNTTAAN N 221
```

SEQ ID NO:3501

LENGTH:220

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04112

SEQUENCE DESCRIPTION:

```
GATCTAATTG TATTAGTATT GTGAATAATC ATGTGAAATG TTTTGAGACA GAGTACTATA 60
TTTGTGAATA TAATNNTATG GTTTTTTCA CTTAGAACCT TTCTGTGTGG AAAACTAAGA 120
AAATTGCTTT CTGCTGTATA ATCTGGCATT CATTGTAGAT TAAAGCTTAT TTTNCTGTGA 180
ATAAACGNN NNCAATAAAA TACTATTCTT TAAAATTAAA 220
```

SEQ ID NO:3502

LENGTH:226

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04113

SEQUENCE DESCRIPTION:

```
GATCTGGACA CCCTGTCTCC TGAGGAGCGC CGGGCCAGGC TGCGGAAGTN TGAGGCTCAG 60
CTCCAGTCGA GGAAGGAGTA CGAGCAGGAG CTCAGTGATG ACTTGCATGT GGAGCGCTAC 120
CGACAGTTCT GGACCAGGAC CAAGAAGTGA CCGTGGCTCC AGCCACCCCG GGACATTGCT 180
AAGATGGGAG GGCTGTTCTT AAATNACTCG TTCTGAAGC TGCAAA 226
```

SEQ ID NO:3503

LENGTH:215



TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04114

SEQUENCE DESCRIPTION:

GATCATGCCG AAAAAGTGGC GGAAAAGCTA GAAGCTCTCT CGGTGAAGAN GANNCCAAGG 60  
 AGGATGCTGA GGAGAAGCAA TAAATCGTCT TATTTNATTT NCTTTTCCTC TCTTCCTTT 120  
 CCTTTTTTNA AAAAATTTTA CCTTGCCCTT CTTTTTCGGT TTGTTTTTAT TCTTCATTT 180  
 TTACAAGGGA CGTTATATAA AGAACTGAAC TCAAA 215

SEQ ID NO:3504

LENGTH:213

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04115

SEQUENCE DESCRIPTION:

GATCTNTTCT TAATGTACAT AGTGCTAACA TGAAGACCTT TTTNTGCACT ATATGCAAAC 60  
 AGGGTAACTA ACTAAACAA AGCCACTTTC AATCTTCAAT CCTTGAAGGT ATATCTAGGT 120  
 TTATNACAGT AATTGNTTTT ACATTNATG GTGCCTAGTA TTGACAAAAT GTTATTTCCC 180  
 TACATTAAAC ATGACTCCAT AGACCTTTTC AAA 213

SEQ ID NO:3505

LENGTH:212

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04116

SEQUENCE DESCRIPTION:

GATCTAATGT AAAATCCAGA ACTTGGACTC CATCGTTAAA ATTATTTATG TGTAACATTC 60  
 AAATGTGTGC ATTAAATATG CTTCCACAGT AAAATCTGAA AACTGATTG GTGATTGAAA 120  
 GCTGCCCTTC TATTTACTTG AGTCTTGAC ATACATACTT TTTTATGAGC TATGAAATAA 180  
 AACATTNAA NCTGAATTNN TTAACNTGTA AA 212

SEQ ID NO:3506

LENGTH:211

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04117

SEQUENCE DESCRIPTION:

GATCAGAGAT GCTGTTTCATC AGTCCCAACA AGATGGCCTA GAAATCGCAT TCTCACCTCG 60  
 CCTTGCTGCT GCTTAAATC CAAGTTCTAT TTCTTCCCTT ATAGTTTCT ATGGGAATGA 120  
 GGCGGATACA GGAACACCC TATCTCTCT GTATTTTGT AGTGGAATTT CTATTTAAGG 180  
 GGCTCATTAA AGCATAGTAT TTATACAAA A 211

SEQ ID NO:3507

LENGTH:209

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04118

SEQUENCE DESCRIPTION:

GATCGAGATN CAAAGCCACA TNCTCTCTCA CCAAGNTAAA CTATTANAT TAATTGTTAG 60  
CGGTGTTATG CTGCTTTCTT CTTTGACAAG GCCATGACTA AGAAGGCTCT AAGTAAAGGA 120  
AGAATCATTT ATTCCATAGT CAGCTAACTG GTAGCAAAGC CTTCTNTTCC AAGACACCAA 180  
GGGAGAGGGG AGGACATAAA TTATGCAAA 209

SEQ ID NO:3508

LENGTH:208

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04119

SEQUENCE DESCRIPTION:

GATCCCTCT TNAGTCNCCT GCCCCTTCCA AGGACACTAA TGAGCCTGGG AGGGTGGCAG 60  
GGAGGAGGGG ACAGTTCAC CTTTGGAGT CCTGGGGTTT TTCCTCTTNC GCCCCTTGTG 120  
GTTTCTGTTT TGTAATTTAA GAAGAGCTAT TCATCACTGT AATTATTATT ATTTCTACA 180  
ATAAATGGGA CCTGTGCACA GGAGGAAA 208

SEQ ID NO:3509

LENGTH:322

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04120

SEQUENCE DESCRIPTION:

GATCCAAGCA TATAAAAAGC CTNTATATTT TTNAAAAACA CATCTTAACT CCACGCTTTA 60  
CGATATTATA AAAGTTGAAT GGTTCCTCTT GGTAAGGATA TTTGCTTACA AGTGCTAGGA 120  
AATAACTNNC TGATAGCTGC GTTAACATAC TTNGTTTTGC CTAGAGAGGG GCAATAAAAA 180  
TGAACCAAAG GATATTTCCA GAAAGGATTA AGAAAGCTGT TTAAGANGGC CATGACTCTT 240  
TAGGTGTGTA TGTGTACCTT TCAGCATCCT AGGAATTTN AACTAAAAAG CAAAATGTTT 300  
TTCCAGTTA GTCTTCTTCA GN 322

SEQ ID NO:3510

LENGTH:205

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04121

SEQUENCE DESCRIPTION:

GATCCGNCCA CCTNGGCCTC CCAAAGTGCT GGGATTACAG GTGTGAGCCA CCGTGCCCGG 60  
CCTCTTTTAA TTTATNCCTA AAATATTACC TTGAGGCCAA ATNCTGCGCT TAAGGAGAAT 120  
GTGCACCAAG TGCTGGGGTG GGGGCTGGTT ATAAACGAGG CCACAAATNA TGCTTGAAA 180  
TAAATTGTGT GGTTCAAATC TGAAA 205

SEQ ID NO:3511

LENGTH:205

2153480

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04122

SEQUENCE DESCRIPTION:

GATCCCTCAC TTTATTTATA TTCCCACTAT AACCAGTAAG TTCATTTTCAT AGGCCCTATC 60  
ATGCATTAAT CATTGNATGN NAGNAGTTAA TGAAAACTTT TCCTGTTACA ACGCCCATTG 120  
CCGGCAATGA ACGTACCAAA ACCGCCAAGG AAGTCATTGT TATTGCACAA TACATGAGGA 180  
CCTGGAGCTT TTCCAAAAGC TTAAA 205

SEQ ID NO:3512

LENGTH:204

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04123

SEQUENCE DESCRIPTION:

GATCTAAAC GGCTATTTAA TATGTTACAA GGCACCTGAG TATGGTTGCA TGTCCAAATA 60  
TAAATGTTTT TAAATTAAC TAAACATTTG GTTATAAAAG TTTANCCATA ATAATAGAAT 120  
TTTTAAACA CGNTTGNTG GTTTAATCTT AGCATATTTT TCCAATAAT AAAGCTCAGT 180  
ATTCGTCTGN GTTCTCAGNG GAAA 204

SEQ ID NO:3513

LENGTH:201

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04125

SEQUENCE DESCRIPTION:

GATCTCTCTC ATTCATTTCA ATGTATTTTT ACTTTAAGAT GAACCAAAAT TATTAGACTT 60  
ATTTAAGATG TACAGGCATC AGAAAAAGA AGCACATAAT GCTTTTGGTG CGATGGCACT 120  
CACTGTGAAC ATGTGTACCC ACATATTANT ATGCAATATT GTTCCAATC CTNCTAATA 180  
CAGTTTTTTA TAATGTTGAA A 201

SEQ ID NO:3514

LENGTH:200

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04126

SEQUENCE DESCRIPTION:

GATCCAATTT ACATCCACAT TTTAGGTNCA ACAGCAAGAA GTTCAGAGAG AGATTTCCCA 60  
ACCAGACATT GGGTCACTCA CTGGTCACCT TGCCAGTNCA TTTTATTAGA AGGGAATCTG 120  
TTGTAGCAAA TGGGAATAAA CCTGGGTTTC TATAGACCCA GAAGTAAAA AATAAACATC 180  
GTGCTGTTTT TAATTNGAAA 200

SEQ ID NO:3515

LENGTH:209

TYPE:nucleic acid

01166

TOPOLOGY:linear

CLONE:HUMGS04127

SEQUENCE DESCRIPTION:

GATCTTAGTT TTCTTTTGT TATTTCCCAG CTCATTTTTT TCTTCTGGTC AGTTTTTTTA 60  
 AGGGGGGGTG TTGTGGTTTT TTGTTTTGT TTTGCTTCTG AGAAAGCATT TGCCTTTCTT 120  
 CCTCTCCCAA CATAACAATC GTGGTAACAG AATGCGACTG CTNGATTAC CGATGTATTT 180  
 AATGTAAGTA AAAAAAGGAA AAAAAAGAA 209

SEQ ID NO:3516

LENGTH:198

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04128

SEQUENCE DESCRIPTION:

GATCCATTCC CTGCAACTNA AGATTCTAAG GAACTGGGTT TCTCAGTATA CAATGGGAAT 60  
 GGTGNNAGG AGGTAAAGAG TAGAAGACAG TATCAAGANT CCAGAGCCCA GCACCTGTAG 120  
 TCCTAACTAT NCANATTCTT TGAGCCCAGG AGTTTGAGTC CAGCCTGGAC AACATATTGA 180  
 GACCCCATC TCTCTAAA 198

SEQ ID NO:3517

LENGTH:191

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04129

SEQUENCE DESCRIPTION:

GATCATGAAT AGGAGCCCAT GCTAGAAGTA CATTCTCTCA GATTGAACC AGTGAAATAT 60  
 GATGTATTC TGAGCTAAAA CTCACTATA GAAGACATTA AAAGAAATCG TATTCTTGCC 120  
 AAGTAACCAC CACTTCTGCC TTAGATAATA TGATTATAAG GNAATCAAAT AAATGTTGCC 180  
 TTAACCTCAA A 191

SEQ ID NO:3518

LENGTH:191

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04130

SEQUENCE DESCRIPTION:

GATCCAGGCA GCCAAGAAGT TGATGAATGC TGTGGTGCAG ACAGTGAAGN CATCCTACGT 60  
 CGCCTCTACC AAATACCAAA AGTCACAGGG TATGGNTTCC CTCAACCTTC CTGCTGTGTC 120  
 ATGGAAGATG AAGGCACCAG NGNNAAGCC ATTGGTGAAG AGAGAGAAAC AGGATGAGAC 180  
 ACAGACCAAG N 191

SEQ ID NO:3519

LENGTH:187

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04131

SEQUENCE DESCRIPTION:

GATCTCCCC AAAGATTCCA GCGGGTGCAA CCCTGCNTGT TCGAGGTGGA GCTGCTCAAA 60  
 ATAGAGCGAC GAACTGAGCT GTAACCAGAC TGGGGAGGGG CAGGGGGAGA GGCCCCATC 120  
 AGGGACCAGA CTGTTCCAGA AAAAAACAA AAAACANAAA CAAACAAAA AACACTTAAA 180  
 AGCCAAA 187

SEQ ID NO:3520

LENGTH:184

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04132

SEQUENCE DESCRIPTION:

GATCGAGACT CTNCCAGAAA ACAAACAAA ACAAAAAAAA ATCCGTTTCT AAGGACGGCG 60  
 GGGATTCCGT TCGAGCCCGT GGCTGCTCTG TTTTGTTTTG CTTCTTGCT ATATAATCCT 120  
 ANAAATAAAA GGGTAATATA AATATTTNAG AAGAGGGAAA TTGCTGAAGA GTAGTAAGGG 180  
 CAAA 184

SEQ ID NO:3521

LENGTH:177

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04133

SEQUENCE DESCRIPTION:

GATCAGATGA CCATTGAGGA CTTGAATGAA GCTTTCCAG AAACCAAATT AGACAAGAAA 60  
 AAGTATCCCT ATTGGCCTCA CCAACCAATT GAGAATTTAT AAAATTGAGT CCAGGAGGAA 120  
 GCTCTGGCCC TTGTATTACA CATTCTGGAC ATTAAAAATA ATAATTATAC AGTTAAA 177

SEQ ID NO:3522

LENGTH:220

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04134

SEQUENCE DESCRIPTION:

GATCCCATCC GAAGCTCAGG GTATGGAGAG CGGGGAGCTC CNCCAAAGAT TCCAGGCGGT 60  
 GCANCCTGGT GTTCGAGGTG GAGCTGCTCA AAATAGAGCG ACGAACTGAG CTGTAACCAG 120  
 ACTGGGGAGG GGCAGGGGGA GAGGCCCCCA TCAGGGACCA GACTGTTCCA AAAAAAANC 180  
 AAAAAACAAA ANCAAACAAA AAAACACTTA AAAGCCCAAA 220

SEQ ID NO:3523

LENGTH:172

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04135

SEQUENCE DESCRIPTION:

GATCCTACCT AAGGGGCACA ACTAGTAAGG GAGTAGAGCT GAGATTGGCT CCAGAGTTCT 60  
 TGTTTTTCAGC CACCATTTTA TGCTGCCTCT CCAGTNATTT TTTTCCCAT TTTCTTCAGT 120  
 NTTTCTATAG CAGAGATTG ATAATAAAAA GAAAATCCTA AACAATGAGA AA 172

SEQ ID NO:3524

LENGTH:169

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04136

SEQUENCE DESCRIPTION:

GATCGCACTG CGCAGGGGTG CCACGGAGCT CACCCACGAG GACTACATGG AAGGCATCCT 60  
 GGAGGTGCAG GCCAAGAAGA AAGCCAACCT ACAATACTAC GCCTAGGGCA CACAGGCCAG 120  
 CCCCAGTNTC ACGGCTGAAG TGCACAATAA AAGATGGTTT AGGGTCAAA 169

SEQ ID NO:3525

LENGTH:169

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04137

SEQUENCE DESCRIPTION:

GATCTCAGGC ATCGGATTAT TTCTCCTGTA AATATTTTCAG AATGTATCTN TCCAAGATGA 60  
 GAGCTCATTA AAAGACAATT ACAAAGCTTA TCACATCCAA AAGANTTATC AATAATTTN 120  
 AAATATTATT AANCGTGTA TAAATNTNCA AAGTNCCACT TGCCTTAAA 169

SEQ ID NO:3526

LENGTH:165

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04139

SEQUENCE DESCRIPTION:

GATCAAAANG AGTNAANCTA TCCAAAAAAA ATTTGTATAT TTGGGAAAAA TGGATTTTAA 60  
 CATAGCTTTT GTATGCAGAT ATAAAACTGT AATTATGAAT ATAGTGGGCG TAGATAAACT 120  
 CATAAGCTTA AATTCTAAAA ANGAAAAAGC TTATACCANG ATAAA 165

SEQ ID NO:3527

LENGTH:165

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04140

SEQUENCE DESCRIPTION:

GATCAGCCGA TGACAGAGAT TGTAAGCCGT GTGTCGAAGC GAAAGTTGGA GCCGCCACGT 60  
 GCGGGCNCCTG GTGCTTNANC TGTGCTGTAA CGACGAGAGC GGCGAGGATG TCGAGNTTCC 120  
 CTATGTCCGA NACACCATCC GCTGACCCCG INTGNTCCTN TAGGN 165

SEQ ID NO:3528

LENGTH:165

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04141

SEQUENCE DESCRIPTION:

GATCCATTG AAAGTNATTT TGACATAAGG AGTAAGGTTA CTACTGATTC CTACTCAGGA 60  
GGCTAAANTG GGAGGACCAC TTAAGTATGG NAGGTCGAGG CTATAGTGAG CCATTACTGA 120  
GCCACTGCAC TACAATCTGG GCGACANAGC AAGACTCTGT CTAAG 165

SEQ ID NO:3529

LENGTH:161

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04142

SEQUENCE DESCRIPTION:

GATCCTGTGT TTGCAACTGG GGAGACAGAA ACTGTGGTTG ATAGCCAGTC ACTGCCTTAA 60  
GAACATTGA TGCAAGATGG CCAGCACTGA ACTTTTGAGA TATGACGGTG TACTTACTGC 120  
CTGTAGCAA AATAAAGATG TGCCCTTATT TTACCTACAA A 161

SEQ ID NO:3530

LENGTH:161

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04143

SEQUENCE DESCRIPTION:

GATCAGTCAT CCACCAGGAA CGAAGATTTC CTGAAGAAGA CCTGGTCCCT CTGGAGGTTG 60  
CGGTGGCTGA AGGATGCATC ATGTGCTCCT ACCCTGCTCT ACCGCTTTNT TGGGTCACAG 120  
AGGCCAAATG TGAGAGCATT GAATAAATAT CTTAAGCTAA A 161

SEQ ID NO:3531

LENGTH:159

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04144

SEQUENCE DESCRIPTION:

GATCTCGTGA AGCCCGCAAG GACCGAACAC CCCACCCCG ATTAGACCT GCGGGTGCTG 60  
CCCCACGTCC CCCACCAAAG CCCATGTAAG GAGCTGAGTT CTTAAAGACT GAAGACAGGC 120  
TATTCTCTGG AGAAAAATAA AATGGAAATT GTACTTAA 159

SEQ ID NO:3532

LENGTH:386

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04145

SEQUENCE DESCRIPTION:

GATCCTTACA GTAGAGGTGA CCCCTGTAAT ACCATCTGCT GCCGTGAGGA CCTGAACTCA 60  
 CCTAACCCAA GTCCTGGAGG TTNNNNNGAC ACAAAGGTGG CAGATATCTA CCTAGCATCT 120  
 CAGTACACAT CCTATGCCAT AAGTGGTCCC ACAGTACAAG GTGGCCTCCC TGTTTTTCGC 180  
 TGGGACCGTT TCAACAAAAC TCTACATCAG GGCATGCCAG AGGTCTACAA CTTTGATTTT 240  
 ATTACCATGA AACCAATTTT GAAACTTGAT ATAAAATGNA GGAGGGAGAT GACGGACTAG 300  
 AAGACTGTAA ATAAGATACC AAAGGCACTA TTTTAGCTAT GTTTTCCCA TCAGAATTAT 360  
 GCAATAAATT TNTTAATTTT GTCAAA 386

SEQ ID NO:3533

LENGTH:391

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04146

SEQUENCE DESCRIPTION:

GATCAGATTA AACCATTGAA GTTGGGAAGTT CATNAGGCTA AGCCTGTNCC AGAAAATCAC 60  
 CCACAGTGGG ATACAGCAAT AGAGGGGGAT GAAGACCAGG AGGACAGTGA GGGCTTTGAA 120  
 GATAGCTTTN AGGAAGAAGA GGAGGAAGAA GAAGATGATG ACTAAGCAGT ACTCTGAATG 180  
 GNCCACAGTG TTTGCACATA TTTNCAATTT TTTNCTGTTT TGGAAAGTGA TCATAAACCA 240  
 GAAACAGTAC AGAACTGATG TTGNGGGNGG TGTNGTTTTT TTA CTCTAGA NATGGGTGCA 300  
 TAATATNACT AGGCAGTGGC GGTGCCTTGG TNCANCCTGN AAAATGTTAA GGCTTTNTTG 360  
 AAACCTTTCC AGTNGGGGNT GGTCCNTTNA N 391

SEQ ID NO:3534

LENGTH:157

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04147

SEQUENCE DESCRIPTION:

GATCGCCCCG ACTCGGCCTC CCAAAATGCT GGGATTACAG GCGTGAGCAT TCAAGTCTGG 60  
 CGAGAGAGAT TGTTTCTAGA TGAGGGTGGG GCGGGGTGTC CTTAGCCCAA AGCTTGTGCC 120  
 AGTCTCTATC GGAAATAAAT GCCCCAAAAA CCTCAAA 157

SEQ ID NO:3535

LENGTH:154

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04148

SEQUENCE DESCRIPTION:

GATCTACAGC AAAACACAGC GGGAGAGGTT CGCCTGGGCT CTCGCCATGG CAGGAGAAGA 60  
 CTTTGAATTC TAACGACGAG CCGTGTTGAA ACTTCTTTTG TATGTGTGTG TGTTTTTTTC 120  
 ACTATTAAG CAGTACTGGG GAATTTTGTA CAAA 154

SEQ ID NO:3536

LENGTH:151

TYPE:nucleic acid



TOPOLOGY:linear

CLONE:HUMGS04149

SEQUENCE DESCRIPTION:

GATCTAGGCA ATGATTTAGA GGAAACCTCN TCACAAAAAC CCCAGAGGAA GAATATGACC 60  
TGTGTTTCAA ATTTGCCTT TCTGAATAT TAAAAATTAT GTGTATGTTT TTGCTTTGTA 120  
TTTTAAAAGT AAAGCTGCTG TCCTCAAGAA A 151

SEQ ID NO:3537

LENGTH:355

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04150

SEQUENCE DESCRIPTION:

GATCTATGAA AGCGGGGAGA GGGAACCTGA ATATTAATTA TGAGCACAAA TTTGAAGGAA 60  
AGAAAACAAA GAACCATTAT CTAATCAAGC TTTGAAAGTC CTGCATGTTT GCCTTTTATT 120  
TTAGTGTTGA CGCCAACATA GACTGTCTAA GGTATTTTTT TCCCCAAACA CTTGAATCTT 180  
GGTCGTTGGT ATGTAATCCA CTCTCTAGAG TCCAGTGTAC TTTAGACTTC ATCTGAGTCC 240  
AATATATGTA CCACACTACT GTTTTATTAA TGTA AAAACC TTGTAAATGA ATTCAGATG 300  
GGTGATTAA GTGAGTCACA AGTCACAAAA CTTTGCTATT CATAGTTTAT CTNGN 355

SEQ ID NO:3538

LENGTH:148

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04151

SEQUENCE DESCRIPTION:

GATCTCTGCT TCCTGTACCT TGACATGCAA AAGGCTCTCC TAATACTCCA CATTCAAAC 60  
GAAGAGGAAA ATTGAAATCT CTAATGAAGC TGCTGTGTGT ATTTATGANT ATTAATGAAT 120  
AAAAACTGCT TGGATGGTTT ACCTTAAA 148

SEQ ID NO:3539

LENGTH:148

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04152

SEQUENCE DESCRIPTION:

GATCAACAAC TNGTACTCT CGGGAAGACT CCTCTACTCA CAGCTGAAGA AAATGAGCAC 60  
ACCCCTCACA CTGTTATTAC CTATCCTGAA GATGTGATAC ACTGAATGGA AATAANTAGA 120  
TGTAATAAAA ATTNAGTTCT CATTTAAA 148

SEQ ID NO:3540

LENGTH:147

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04153

## SEQUENCE DESCRIPTION:

GATCAGAGTA AACAAAAGGA ATCTCAAAGG AAATTTGAAG AAGAACTGT AAAATCCAAA 60  
 GTGACTGTTG ATACTGGAGT AATTCCTGCC TCTGAAGAGA AAGCAGAGAC TCCCACAGCT 120  
 GCAGAAGATG ACAATGAAGG AGACAAA 147

SEQ ID NO:3541

LENGTH:146

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04154

## SEQUENCE DESCRIPTION:

GATCGTGGCG CATGGCTTGG GGATTAACT ACCCTTGANG AGGACCCTTG TCCCAAACCC 60  
 TTCTTGTCT CTCCTCCAAA AGTAGCTTCC TCCAACCCGC AGCCTCTCTG CACACTAATA 120  
 AAACATGTGG CTTGAAAAGG TTCAA 146

SEQ ID NO:3542

LENGTH:144

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04155

## SEQUENCE DESCRIPTION:

GATCTTTAAG GACAAGTTTA TCCAGCATCC AAAAACTTT GGACTAATTG CATCATACTT 60  
 GGAGAGGAAG AGTGTTCCTG ATTGTTTTT GTATTACTAT TTAACCAAGA AAAATNAGAA 120  
 TTATAAAGCC CTCGTCAGAA GGGN 144

SEQ ID NO:3543

LENGTH:140

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04156

## SEQUENCE DESCRIPTION:

GATCTGGGTT TTNATATCTT TATCTTCATT CAGTGAAGCA AGCCAAAAGC NCACATTTGT 60  
 ATGCNTTAGG TCTTCTAAA ATGGTATCTG TAAACATGTG TCCAATATAA AANCTATTTT 120  
 NAATAAAANG TTACATGAAA 140

SEQ ID NO:3544

LENGTH:138

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04157

## SEQUENCE DESCRIPTION:

GATCAGCAAT GAAGAACTGG NCGGACAAAA TTNAACGTTN ATGTAATGGN ATTCCAGATG 60  
 TAGGCATTCC CCCCAGGTCT TTTCATGTGC AGATTGCAGT TCTNATTCAT TTGAATAAAA 120  
 AGGAACTTGG AAANCAAA 138

SEQ ID NO:3545

LENGTH:137

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04158

SEQUENCE DESCRIPTION:

GATCTAAATG GGCCAGGTG TTTACCCTTA TNTNGTTTTC TGCTAAATNA TGGAGGTTTG 60  
GGGAGTTCCT TCTCCACTTG TTTGTGGAGG CCTGGGGAGT TTTTNNAGAC CCCCAGTAAA 120  
ACTNGTTTAA TCCTAAA 137

SEQ ID NO:3546

LENGTH:136

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04159

SEQUENCE DESCRIPTION:

GATCCCTGTA GAGGTGGTAT TAAAGATGGT CACTGAGATT AAGAAGATTC CTGGTATTTT 60  
TCGAATTATG TATGACTTAA CATCAAAGCC CCCAGGAACT ACTGAGTGGG AGTAATAAAC 120  
TTCTTGTCT ATTAAT 136

SEQ ID NO:3547

LENGTH:135

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04160

SEQUENCE DESCRIPTION:

GATCCTAAAA TNNTCTACTT TTGTNGCCTT ATCAGTNCTT TGCAATCTGC CTGTGGTTAT 60  
CAGCACTTAA AGCACAATTT TGAAGGGGAA AAAAATGATA ATCACCTTAG TCCCAAAGAA 120  
ATAATTTGTC ANNCN 135

SEQ ID NO:3548

LENGTH:134

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04161

SEQUENCE DESCRIPTION:

GATCTGGACT GGCTGGGAGT GGGGAGGGCG TGGAGACAGT CTACGGAAAG CGCTANAGGA 60  
CCCCCGAGAG GGTGCAGTGG AGCCCTGAGC ATTGTAATAT GCGGCCAGC CTATAACAG 120  
CCTCCGTGCT TAAA 134

SEQ ID NO:3549

LENGTH:134

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04162

## SEQUENCE DESCRIPTION:

GATCCTTTGC TGTAACTNG GAGAGACCAG TCCCAAACAG AGGGGAATTT TAAGCCCTTC 60  
 TCATCACCCA ATTGGATGTT TTTGCTTATA GCAAATTCCT GCAAAATAAA TAAATAAATA 120  
 TTTGCAAAAC TAAA 134

SEQ ID NO:3550

LENGTH:133

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04163

## SEQUENCE DESCRIPTION:

GATCTATGGG AAGATACTTA TTTTCTGAG GTCCTTATGT CCTGTCATAT AATTAAAGAC 60  
 TCAAGAGAAT TTATGTGAAA TGCTTCTGT ATGCCCAAAT CTTTAGATTA AAATTATATA 120  
 GCTGCTCCTG AAA 133

SEQ ID NO:3551

LENGTH:132

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04164

## SEQUENCE DESCRIPTION:

GATCTCAGTT CCNTAAAAA TGATAAAAT TTTTCATGTA TATTACATAT CTACCTACCA 60  
 GAAATCCTTT TTACAATTTT ATATACAATC ATTTTAAGAC CTTTTGAAA TAAATAATGC 120  
 AAATGAACTA AA 132

SEQ ID NO:3552

LENGTH:154

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04165

## SEQUENCE DESCRIPTION:

GATCACGGGG TGGNAGGNAA CCGNGGCGTC CCTGCNTGGG GCCCATGGGT GANACACTCC 60  
 AGTACTGAGA CCTAGAGTCC AGATGCTTGT AGGAGCCAAG TCGTGTTCTA AGTATTTATT 120  
 TAAAACAAAA GAATCACGTT TTCCCATTTG TAAA 154

SEQ ID NO:3553

LENGTH:213

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04166

## SEQUENCE DESCRIPTION:

GATCCTTAAT TGTAGCCTTT GAAGGATGCC CTGTGTAGAT TATTCAGTGC CACAAATTGA 60  
 AAGCTTCCAT GTTTAATNTT ATCCTCTTGC TATATAAATA AAGCAAATAT ATTTAGGCCA 120  
 GGGTCTCACT GAGGGGGAGC TGTCTTGCA TCTTTTAGAG TAACTATTC TATAAACATA 180  
 TGCAAACAGC CCTAAATAAA TCTAAAGTCT AAA 213

SEQ ID NO:3554

LENGTH:125

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04167

SEQUENCE DESCRIPTION:

GATCCCAAGG GCCCAGATAA CGCCCCAAC TTCTTGGGGT TCACACGCGT CCTGAGACAT 60  
CTGGGAACTG CCTCTGCCTG GNCCAAAGCT ATTCCATTAA AACTTTATTG CTGTNCTTAC 120  
TCAAA 125

SEQ ID NO:3555

LENGTH:127

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04169

SEQUENCE DESCRIPTION:

GATCTGTGTA CAATTTTNGT CACTANGACT TTCCTCCAAG AACTAAGCCA ACTTGATGTN 60  
NCAAAGCACA GCTGTATATA ATGGTGATGT CATAATAAAG TTGTTTTATC TTTTAAGTAA 120  
AAGTAAA 127

SEQ ID NO:3556

LENGTH:126

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04170

SEQUENCE DESCRIPTION:

GATCAAGGAC TCTGGATAAT TGGCATAACA TCCTGGAATA GCTGAAACAG AGATATTATT 60  
CTCTGCTGTC CTCTGTTGTC TTTGTCTTTT CACGTCTTAA TAAAAGTGCT GGTGACAAGA 120  
GTGAAA 126

SEQ ID NO:3557

LENGTH:123

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04171

SEQUENCE DESCRIPTION:

GATCAGAGCC ATACCCTCT TCACCAATGG GAAGTCAAGA CACCTATGGG TAAAAGTTCT 60  
CTCTGATGCA TGAAACTCA GAGTGATAAA GTAATTTTAA AATAAAAATT TGGAGAAAGC 120  
AAA 123

SEQ ID NO:3558

LENGTH:121

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04172

SEQUENCE DESCRIPTION:

GATCTAAAAG TTTTCACACA TAAATTTTCAT TAATTTGAAA GATTATTTTT AAAGTGCATA 60  
GGTCCACTTG CCTCTAAATA AAATNAACCT AAAATAAAAA CAAACTATAC TTTGTGAGAA 120  
A 121

SEQ ID NO:3559

LENGTH:121

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04173

SEQUENCE DESCRIPTION:

GATCTCCCC AACCCACAA AATGCTTAAA AGATAACTTA GCTCTTNTT CAGGGCTCAG 60  
TCCTTTGGAT GTAATCCGAC TAGGCCAGTN AACCTAAATA ATAAATATCC TCCTCAACAA 120  
A 121

SEQ ID NO:3560

LENGTH:120

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04174

SEQUENCE DESCRIPTION:

GATCCTGAGT TTTCTGGGAC AATCCAGCT TTAATCAATA CATTTTGTTA AATGTGCCAT 60  
AAATGAGAC TTTTACGCC TTTATAAGGC CTTAGATGTA AATAAATCA CCCAAACAA 120

SEQ ID NO:3561

LENGTH:119

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04175

SEQUENCE DESCRIPTION:

GATCATTGTA TTCAGAGATT GTAAATGAAA AAATATAGAA ACTATTTAGT TTTGGTAGAT 60  
TTTTTTCTG ACAATGTGAC CAGACTGAAT TTCCTCATAA AGAAAAAATG GCGTGCAAA 119

SEQ ID NO:3562

LENGTH:118

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04176

SEQUENCE DESCRIPTION:

GATCCCAGCA TTTTCCATCG ACTTGTAATT GTTTCTGCTA CCTGACAATC ATCGCCTTGA 60  
GTACTGGGAC AACCTTTGAT TACTCATTAT ATCCTCAATA AATATTTGTT GAACTAAA 118

SEQ ID NO:3563

LENGTH:118

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04177

SEQUENCE DESCRIPTION:

GATCCTGGCT AGANTGNTAA TTAAGATAT TTAATTTGAA GCACCATTN ANTGTTCGTA 60  
CTAGTAGAAA ATGATGTGAA TTTCNTTCT GTTCGGCTCC TATTTTCCTC ATCATTTN 118

SEQ ID NO:3564

LENGTH:82

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04179

SEQUENCE DESCRIPTION:

GATCATAGTC GGGCATACTT ATCTATATCC NTAACCTCTA TATCTTTAAA TAAATGTGAG 60  
NACTGTTCTC ATGGAGANGA AA 82

SEQ ID NO:3565

LENGTH:214

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04180

SEQUENCE DESCRIPTION:

GATCTAAAGC NTTTNTGTCA GATTATTTAA TATNATGACT TCATGCTTTA TTATGCCTTA 60  
TNATGGCTGA CGTATTACTG TGGTGAAACA AAATATCTTT AAAAGTTAAA ACATCCAGAT 120  
ATATAAGCAA TTTTNCCTTA AGGATAAAGT ACCTTTAAGC ATGAGTGTAT CACAGCTTTC 180  
ATTAGGNAAA CTTTTCATTA CATACTTGTT TAAN 214

SEQ ID NO:3566

LENGTH:102

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04181

SEQUENCE DESCRIPTION:

GATCCCCNAA TGTGTATGAA TGA CTGAGGC TTTGTAAATT AAGGGACGTT TGTTTGAATA 60  
AAGTTATTTG ATGGGGTCAA AGAAGCCATA TGTGATTTGA AA 102

SEQ ID NO:3567

LENGTH:101

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04182

SEQUENCE DESCRIPTION:

GATCCTCTCC TTAGCTTAG CTCATGGGGC TCTTTATAAA GGAGTTGGGG GGTAGAGGCA 60  
GNAAAATNGG AACCGAGCTG AANGCAGAGG CTGAGTTAGG N 101

SEQ ID NO:3568

LENGTH:99

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04183

SEQUENCE DESCRIPTION:

GATCTGCAGT GCTTCACTGG AAATAATTTA TTCATTGCAG ATACTTTTAA GGTGGCATT 60  
NATTCATTTC CTGTGCTTTA AATAACAAA TGTACCAA 99

SEQ ID NO:3569

LENGTH:97

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04184

SEQUENCE DESCRIPTION:

GATCACCCTG GGCACATGTT GTCAGGACCT CCTGGGGTTG TGTCATGGAT GCGTGCCTC 60  
AACCTTAGCA AAATAAACTT TCTAAATTAC TGAGAAA 97

SEQ ID NO:3570

LENGTH:95

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04186

SEQUENCE DESCRIPTION:

GATCTTCAGT GTGTCTGCAT AAGCTAACTT AAGATGAATT TAAGTACANN TTTCTGAAAT 60  
ATTTCTATTG AAATAAATTA CTTAAATTA NNAAT 95

SEQ ID NO:3571

LENGTH:94

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04187

SEQUENCE DESCRIPTION:

GATCTTTGTG AATTCTATGA ATGTATTAAG TTATCATATG TACTCCCCAA AATAGGTACA 60  
TCTATTATGT ATCAATAAAA AANTTTAAAA CAAA 94

SEQ ID NO:3572

LENGTH:93

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04188

SEQUENCE DESCRIPTION:

GATCCCTTGA GCCGAGGAGG TTGAGGCTGC AGTGAGCTAT GGTCACACCA CTGCACTCCA 60  
GCNTTGGTTA TNATGCAAGA CCCTGTTTAC AAA 93



SEQ ID NO:3573

LENGTH:89

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04189

SEQUENCE DESCRIPTION:

GATCGCACAC CTTTGCAACA GATGTGTTCT GATTCTCTGA ACCTACAAA TAGTTATACA 60  
TAGTGGAATA AAGAAGGTAA ACCATCAAA 89

SEQ ID NO:3574

LENGTH:90

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04190

SEQUENCE DESCRIPTION:

GATCAGTGTC TCTAGTCCTA CCCAGTTTAA AAGTTCATGG TAAGATTGGA CCTCATCTCC 60  
CTCAAATAAA TNTATTGGTG ATTTTNGAAA 90

SEQ ID NO:3575

LENGTH:87

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04191

SEQUENCE DESCRIPTION:

GATCCGCCAG GTGCGGGCGC TACTGCAGGC ACAGCAGGCC TAGGTCTCC CACACCTGCC 60  
CCCTAATAAA GTGGGCGCGA GAGGAAA 87

SEQ ID NO:3576

LENGTH:87

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04192

SEQUENCE DESCRIPTION:

GATCCACCCA CACCTAAGTC ACAGAATTC TAAGTTCCCC AACTACTCTC ACACCCNTT 60  
AAAGATAAAG TATGTTGTAA CCAGAAA 87

SEQ ID NO:3577

LENGTH:83

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04193

SEQUENCE DESCRIPTION:

GATCAAAGTG AATGAAACCC CCACACACAC ACACATGCAT ACACACACAC ACACAGCCAC 60  
ACACACAGAA AATATACTGT AAA 83

SEQ ID NO:3578

LENGTH:83

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04194

SEQUENCE DESCRIPTION:

GATCCCTATT CTGCGTGTAT GTGTTTGCAC ATGAGTGTTT GTAGACCATA GACCATTAAA 60  
AAATACGGAA TTCAAAAGTT AAA 83

SEQ ID NO:3579

LENGTH:84

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04195

SEQUENCE DESCRIPTION:

GATCTATGAA TGTTTTNTT AAAATTACA AAGCTTTGTA AATTAGATT TNTTTAATAA 60  
AATGCCATTT GTGCAAGNTT TAAA 84

SEQ ID NO:3580

LENGTH:112

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04196

SEQUENCE DESCRIPTION:

GATCACATAA AGGCAAGAGG ATACTTCATG AATAATACAT TTNAATGCAA ATAAACAGAT 60  
GGTTCACCTC TACTAGCTAT NNCCCTGTCT TNNTATACAC TGAGTAGATT AN 112

SEQ ID NO:3581

LENGTH:74

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04197

SEQUENCE DESCRIPTION:

GATCTATGTC TGTTGGTGGC AATGTGAGGG TGATACTCTC TCACTCTAAT AAACCTGGCA 60  
CTTCTCCGAG TAAA 74

SEQ ID NO:3582

LENGTH:74

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04198

SEQUENCE DESCRIPTION:

GATCCTGTAT GTGTGTTGAG ATTTAGAGGT TTCATTTATN TTGCTGCTA ANAAATTGTT 60  
ACTCTAATAA TAAA 74

2153480

SEQ ID NO:3583

LENGTH:71

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04199

SEQUENCE DESCRIPTION:

GATCACTGTA TAGACTGTGA AATTGATTT CTTATTACCN ATTGTTAAAT AAACGTGTGTG 60

AGACAGACAA A 71

SEQ ID NO:3584

LENGTH:71

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04200

SEQUENCE DESCRIPTION:

GATCTATTTC TCTGTCTACT TTGGANATGA TTGCATAATA AATAAAATTT TACTGTTTTT 60

TTAAAAGGAA A 71

SEQ ID NO:3585

LENGTH:69

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04201

SEQUENCE DESCRIPTION:

GATCTAAAGA TGTTTAGGGA AGAGCTCGAC TAAAGAACAA TGAAATAAAT GGTCCAAGGG 60

GAAGTCAAA 69

SEQ ID NO:3586

LENGTH:65

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04202

SEQUENCE DESCRIPTION:

GATCAAAAAT GTAAGTCTAT TGGTAGAGAT TAAGTAAAGT ATTTATTGCT ACATCATAGT 60

TGAAA 65

SEQ ID NO:3587

LENGTH:53

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04203

SEQUENCE DESCRIPTION:

GATCTGTGTT GCATTTCAAA ATAACTGGT GTGTGCTCTG CCTGGATTG AAA 53

SEQ ID NO:3588

01182

LENGTH:153

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04204

SEQUENCE DESCRIPTION:

GATCTCAGCC CAGGACGNCA AGCAAGCAGG TCTTGTCAGC AAGATTGTC CTGTTGAGAC 60  
ACTGGTGGAA GAAGCCATCC AGTGTGCAGA AAAANTTGCC AGCAATTCT AAAAATTTGT 120  
AGTAGNCGAT GGNCNAAGNA TCAGTGGATN CAN 153

SEQ ID NO:3589

LENGTH:29

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04205

SEQUENCE DESCRIPTION:

GATCCAAATA AAGGTAGCTG CTGACCAAA 29

SEQ ID NO:3590

LENGTH:64

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04206

SEQUENCE DESCRIPTION:

GATCTCTCTA CAAGAGCCCC TGCCCTCTG TTGGAGGCAC AGTTT TAGAA TAAGGAGGAG 60  
GAGN 64

SEQ ID NO:3591

LENGTH:64

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04207

SEQUENCE DESCRIPTION:

GATCCTTTGC GTGACAGTCT TGTATGGAAA ACAGATGCTG ACAGAATTGT AGACTACCAT 60  
NCCN 64

SEQ ID NO:3592

LENGTH:63

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04210

SEQUENCE DESCRIPTION:

GATCTCGCCT TGTTTCTTAC AAGCAAACCA GGGTCCCTTC TTGGCACGTA ACATGTACGT 60  
ATN 63

SEQ ID NO:3593

2153480

LENGTH:63

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04211

SEQUENCE DESCRIPTION:

GATCTTTGCG AATTACAATG CATATATGTC TATTTATTCA ATATCTGTCA TATAATANCT 60  
ATN 63

SEQ ID NO:3594

LENGTH:58

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04213

SEQUENCE DESCRIPTION:

GATCTTAAGA AAACCTCATA CTGTATGAAT AAGAAAATAA AATATTTAAA ACTTGAAA 58

SEQ ID NO:3595

LENGTH:64

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04214

SEQUENCE DESCRIPTION:

GATCGCCAAG TTCAAAGCTG TGCACATGTG GACACTCAAT AAATGTTTCAT TGGTGAAAAA 60  
CAAA 64

SEQ ID NO:3596

LENGTH:56

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04215

SEQUENCE DESCRIPTION:

GATCCAAAAA GAGTCGACCN GCATTNTTTA TATTAATAAT AAAGTCAAGA TTAAAA 56

SEQ ID NO:3597

LENGTH:52

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04216

SEQUENCE DESCRIPTION:

GATCTTTGTT AATGTCTTGA TTCTGTTTCG AAAGCACAGA CTAGTGCTTA AA 52

SEQ ID NO:3598

LENGTH:52

TYPE:nucleic acid

TOPOLOGY:linear

01184

CLONE:HUMGS04218

SEQUENCE DESCRIPTION:

GATCGCACCA CTGAGCTCCA GCCTGGGCAG CTGNATGAGA CTNCATCTCA AA 52

SEQ ID NO:3599

LENGTH:51

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04219

SEQUENCE DESCRIPTION:

GATCTGGAGG GACACACAGG AGACACCTGG CATAACCAA AAATGATTAA A 51

SEQ ID NO:3600

LENGTH:51

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04220

SEQUENCE DESCRIPTION:

GATCGAAAAC ATATAGANAA AATAAAATGT GTGGTTGCAC CTGTACTGAA A 51

SEQ ID NO:3601

LENGTH:466

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04247

SEQUENCE DESCRIPTION:

GATCTAGAGG AGGATTGCA GGAAGAGCTC GTGGAAGAGG TGGTGACCAN CAGAGTGGTT 60  
 ATGGGAAGNT ATCCAGGCGA GGTGGTCATC AAAATAGCTA CAAACCATAC TAAATNATTC 120  
 CATTGCAAC TTATCCCCAA CAGGTGGTGA AGCAGTATTT TCCAATTTGA AGATTCATTT 180  
 GANGGTGGCT CCTGCCACTG CTTAATAGCA GTTCAAATA AATTTTTTGT ATCAAGTCCC 240  
 TGAATGGAAG TATGACGTTG GGTCCCTCTG ANGTTAATT CTGAGTTCTC ATTAAGAGAA 300  
 ATTTGCTTTC ATTGTTTTAT TTCTTAATTG CTATGCTTCA GANTCATTG TGTTTTATGC 360  
 CCTTCCCCC AGTATTGTAG AGCANGTCTT GTGTTAAAGC CCAGTGTGAC AGTGTCAATGA 420  
 TGTAGTAGTG NCTACTGGTT NTTTAATAAA NCCNTNTTGT ATGAAA 466

SEQ ID NO:3602

LENGTH:429

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04248

SEQUENCE DESCRIPTION:

GATCTATAAA TCAAGAAAAT CCATTGTCAT AACCATTTTT AAAAGTCAAT AATTAAGACA 60  
 TCCTTAATTA AAAAGTTTCA AATCTAGACA CTAAATGTGT GTGAATGTAC AAAGAAAACA 120  
 AACCATTGCT TATGCTGTTA TATACTAGAG AAATTTGTT TTGCTTGCTG TTTAACTTG 180  
 ACAGATGAAG GACTTTAGTT GAACTTCATA TTGTAAGAAC TGTTAATAAA AGTTGTCAAG 240

TAAAAAGCGC TATATCTAAA AAGACTTTAT GAACAGTTAT TCTATCAACT TTAAAGGGT 300  
 TTAAACCTG CCCAGAAATT ACCTTGGTAT CTGAAGTTT CCTCTGTCTC CTCCTCTAA 360  
 TTNAGGCTTG TTATTGTCA TGCACCAGCA TTTGGGGNT AATAANAATT TCTTNGGTTT 420  
 TNGTGAAA 429

SEQ ID NO:3603

LENGTH:419

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04249

SEQUENCE DESCRIPTION:

GATCTGTTGT TTGTTTTTAA GGTGGTGTTT TGTAACTTC CAGCAGGATG CAGAATCTAA 60  
 CTGGTAAACC TATAAATTGG TCAAATTNA CCCATGTTGT TTCTTTGAAA ACAATGTATA 120  
 TNCTCTAATA TTTGGATATA GGGTATATGA NCATTAATGC AACTTAATTG TATTCCAAG 180  
 TACAGTACAT ATGNCAGAT TTCTTTTCT AACCTTATTT AGTGATAGAG GTGTGGTAAA 240  
 CNCTTCCATT ATGTTTATGT ATTANCACTG TAATTTTGTC ATTTTNATAT ATTTNGATGT 300  
 TATGTAACATA GATGCATACA GGATTAGGTA TTTCTTCTG TATTCCTTTT TATGTGGAGA 360  
 TGATATTTTT ACATAGCAAA GTATTGTAAT GCATTAATAA TAAATGGTCA ACCATTAAA 419

SEQ ID NO:3604

LENGTH:419

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04250

SEQUENCE DESCRIPTION:

GATCTGCTAG TTCCAGGCCT CTAAGACAGG AACGTATGTG CCATAAGTGN GTCTACTTCA 60  
 CAGACTCAAT GAGGCAGAAA TTATTGTAGT TTTCTCCTAT TTCTCTGCA CCCAACTTTC 120  
 TNCTTGATT TCAAAGGCCA GGCCATGTAC ACTAACGTCC TTGAAATTTG CAGTTCTGTA 180  
 TGCTTCTATT CCAAATCATT CATTACCAAT AAAAACGGAA TACCACCCTT TCCATTTTAT 240  
 AGNCTCATC CCCTATTTCT GTCAGACAGT TATATGACAG GGTGGNCNGN GGGCCTCTTA 300  
 GTTCATCCAA AGTCTNNCT GNAGTGCTAG NCTTTCAGAC TCTTATCACT GGAAATCNTT 360  
 AAGGGTTGAG GGGGNTTAN TTTCCAGNA CTTGTGNAGG GNTTCAACTG TCAAAACTN 419

SEQ ID NO:3605

LENGTH:404

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04252

SEQUENCE DESCRIPTION:

GATCCGACAC AGAGAACAGG AGGNACTAGA GCGACANAN AGNAGGGCTT TAAGCCAAAC 60  
 TACATGGAAA ATGGTGATAA AAGAAAATNT GGCTGAAGTT ACCCGAAGT CAGCTTGCA 120  
 TGTAATTCAG AAGAGTTAAG ACCAGAAGTA CTGGAATCAT ACTTCCTTTC AGTCTTGCCA 180  
 CTTGCCTAGT GAGGCTTTTC CGAACCTGGA AGGAGACGTC TAGAAATCCC AACTTTGCTG 240  
 TGTAAGGACC ATTAGCTGCA AGTCAGTGGA AGTCTATAGA AAANAGTGTG AATTCATAG 300  
 TGGTCTTGAC TTCTTAGCAA GGATTGGGA TAAGTCTAAA ACTTCAGACT TAAAGCTTTG 360

AAGCATGTTA ACTGCATGAN ATATTAAACA TTTCGAACTT CAAA

404

SEQ ID NO:3606

LENGTH:403

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04253

SEQUENCE DESCRIPTION:

GATCCATGAA TTAACAGAGG CATATATTTA AAATGAAATT TAATGAGCAC TTAGTGA CT 60  
CATTTGTTCA AGAATATTTG ATTTCTATT GTGTGCATGG GAGGTTTACA AAAGACAGAC 120  
TGTCCCTATG CTTGTNCAGC TTACAATCTA TTAACTATT AGAGGCCCTG TGAGATGTAG 180  
GCAGTTATTT ACAGATGAGA AACTAACAC AGCAGTGGCA ATGCTGGGAA TGGCCAACAG 240  
GCTTGGAATT CAACTCAGTT TAGCACAAA GCCAGTNCTA TTAAGACCTG AAGTTCAACA 300  
GTGGATTCCT TACCCAAATA GTTTTAAAG TATGCTCTAA GGNCCAATGT TTTAATGAA 360  
ATCTTGGNTT NCAAGTNGG NNTAAAAGG TTCTGAGCAT AAA 403

SEQ ID NO:3607

LENGTH:396

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04256

SEQUENCE DESCRIPTION:

GATCTTACTT CGTTGACCCA TATTTTCCC CTGACCAAGT TACCTGTAAA CTGGAATTG 60  
CAAGGGGATG CTGTGATGAT AACCCCTTC TATTGCTGTA ATGTTTATAT AACCTGGGAA 120  
ACTGAGAGAA GGGGATGTGT AAATAAAGC TTAAACATT TAGTAATGTG TTAATATGTC 180  
ACTCTCTCTT ACCCTGTTTC CCTTTTTGTC CAGATGATGA TTTTTTATT TTTATTTTGT 240  
ACTTTACTGG ATGACTGTGA AGCGNTGAGT ATTGGGTTGG GGTAGGTGTG TTGATTTTGA 300  
GAGTGCATGT TAAGACCTGA AGGGGAAC TAAGAGGATG ACTTAAGAAG CATCCCATGC 360  
AAATATCTTG TTTTGCCNG AATAAATAT TTCAAA 396

SEQ ID NO:3608

LENGTH:392

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04257

SEQUENCE DESCRIPTION:

GATCTGCCCG CCTTGGCCTC CCAAAGTGCT GGGATTACAG ACATGAGCCA CCACGCTTGG 60  
CCGGGATAGT ATATTTTAT AGCACTTCCC CTAATGATTG CTGCCTTCTC TGTGGCTACA 120  
AGGGACCCAC AGAATTACAG GGAAGTTACA GGGNNGCAGG TTTCATCTCA ATATTGGGAG 180  
AGATTTCAA CAATCACACC NNNNNNCGA AGGAGTGGGC TGCTACTAGG AATTTTATT 240  
CCCAGTCCGT CAGGAATTTT GTAGAAGGC TTCATGTGCT GGTACCAATA GGACAGGAAG 300  
ATTTAATCA GCCTTACTAT CTATGTTTTT TTATGGAAC TGTGTGTATG TATACATACA 360  
TTTTCCAAA AGNANAAATT AAATGATTAT AG 392

SEQ ID NO:3609



LENGTH:392

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04258

SEQUENCE DESCRIPTION:

```
GATCCGCCCA CCTCCGCCTC CCAAATTGCN GGGATTACAG NCCTNAGCCA TNCCCACCCG 60
GCCAATAAAA ATTTTAACTT AATGAGAGAA ATAGTAAGAT AAAATGAACA 120
TATGTTAAAT ATTTAACTT AATGAGAGAA ATAGTAAGAT GTTACCAGTT ACTTGATGAT 180
GGAGGAAAGG ACGAAAAGCC AAGGAATACA TGAATGCAG CTCTAGGTGC TGAAAAAGGC 240
ANGGAAAGGT TCTACGTTAG NGCTTCCAGA GGGAGCTCAG CCCTGTCANC ANCNTNGTTT 300
CAGCTCAGTC ATATCGNTGT TTAGACTTTC TGGTCCCCAG NGCTGGGCGG GGGATATATT 360
TCCTGCTGTT TTAAGNCNCC NNATTTTGTG GN 392
```

SEQ ID NO:3610

LENGTH:391

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04259

SEQUENCE DESCRIPTION:

```
GATCCTAAGG GGTTCAGGGG GACCCTACCC CCACCTCAGG TTGGGCTTCC NTGGCCACTC 60
ATGCTCCACA CCAAAGCAGG ACACGCCATT TTCCACTGAC CACCCTCTAC CCTGAGGAAA 120
GGGAGACTTT CCTCCGATGT TTATTTAGCT GTTGCAAACA TCTTACCCT AATAGTCCCT 180
CCTCCAATTC CAGCCACTTG TNAGGCTCTC CTCTTGACCA CTGTGTTATG GGATAAGGGG 240
AGGGGGTGGG CATATTCTGG AGAGGAGCAG AGGTCCAAGG ACCCAGGAAT TTGGCATGGA 300
ACAGGTGGTA GGAGAGCCCC AGGGAGACGC CCAGGAGCTG GCTGAANGCA CTTTGTACA 360
TGTAATGTAT TATATGGGGT CTGGGGCTCC N 391
```

SEQ ID NO:3611

LENGTH:386

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04261

SEQUENCE DESCRIPTION:

```
GATCCGACCG CGTGN TGCCG CTCTGCTCTC TCATACGCGT GTATGTTTGG TTCCATGTCA 60
CAGCCCCCTA GGAGCCAGTN ATGCTCGGCC TTGCGCCCGT NCCACCTCCC AGGCCACCCT 120
TCCTGGGCTT CTGGGCCACC TGCCCTCGGG GGGCCCTGC NAGGGTGCCT GGNGTTCCCA 180
CGTGTCCCGG GGCTTTTCCA GGAAGCCCGA GCCCAGGACC TGTGGCAGA GTTGCCAGGG 240
TTACATTTTT NAAGCACCTG CTCCTTTTNT TGCAGTGTAT TTTCTACAAC CAGATTGTAT 300
TAATATTTTT AACTTTGCC TTTAAAAAA TATACCTAAT ACAATATATT TAATTNTGAA 360
TTAAACTCTT AAACTTTCT TCCAAA 386
```

SEQ ID NO:3612

LENGTH:375

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04264

## SEQUENCE DESCRIPTION:

GATCCCTTTG GGGCATGAAG TGTGACAAGT GTGGGCTCCT GAAAGGANTG TNCCAGAGAA 60  
 ACCAGCTAAA TCATGACACC TTCAATTTGC CATCATGACG CAGACCTGTA TACATTAGGN 120  
 TAAATCTGAA TTTCCACTGC TTTGGAGAGT CCCACCCACT AAGCACTGNG CATNNAACA 180  
 GGTTCCTTTG CTCAGATGAA GGAAGTAGGG GGTGGGGCTT TCCTTGTGTG ATGCCTCCTT 240  
 AGGCACACAG GCAATGTCTC AAGTACTTTG ACCTTAGGGT AGAAGGCAA GCTGCCAGTA 300  
 AATGTCTCAG CATTGCTGCT AATTTTGGTC CTGCTAGTTT CTGGATTGTA CAAATAAATG 360  
 TGTGTAGAT GGAAG 375

SEQ ID NO:3613

LENGTH:372

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04265

## SEQUENCE DESCRIPTION:

GATCCTAGAC CAGCATGCCA GTGTGCCAAG GCCACAGGGA AAGCGAGTGG TTGGTAAAAA 60  
 TCCGTGAGGT CGGCAATATG TTGTTTTCT GGAAGTACT TATGGTAACC TTTATTAT 120  
 TTNCTAATAT AATGGGGGAG TTTCGTACTG AGGTGTAAAG GGATTTATAT GGGGACGTAG 180  
 NCCGCNNTCC CNNGTGTGT AGGTTTCTCT TTTTCAGGCT TATACTCATG AATCTTGTCT 240  
 GAAGCTTTTG AGGGCAGACT GCCAAGTCTT GGAGAAATAG TAGATGGCAA GTTTGTGGGT 300  
 TTTTTTTTTT NACACGAATT TGNGGAAAAC CATTAAATCA TTCAAAATAA TAANCTNTT 360  
 TTATTNGGGA AA 372

SEQ ID NO:3614

LENGTH:372

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04266

## SEQUENCE DESCRIPTION:

GATCTAAATA TATATTTTGT ATATTATAAT ATTTTAGGAA TAGCTTAATT AAGANCTCAC 60  
 AGACTTTGAC AAAGTGGTAA CTAGACTTTT AATTACTAGA TTCTTCAAT TAGGCTTAAT 120  
 GCCTGCTAGC ATGCCAATCC AATCCCATGA CTGATGTTAT TATACTAT GGCAAATACA 180  
 AAGTTGTAGT ATTATGGTTC TTGATGGTGT GATTACTTA TGTAATAT GTACAAATT 240  
 AAGTTCAATG AAACACTGAT TTAATGTACT GAAAGGTAAG TAGTACCATA GTGAATTATT 300  
 TCCTGTCTTG CCTTAGGTTT ATTTTATNA TCTTCAATAT TAGANTAAAT GCTAAATTAT 360  
 TTTCATTTTA AA 372

SEQ ID NO:3615

LENGTH:370

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04267

## SEQUENCE DESCRIPTION:

GATCTGAACT CCTTATACAT AAGAAGGTGT GTATATTAAT CCAATTATGG ACTTAAATA 60

TTTTAAAAGT ATAAATACCC TTATTTGCTG CAAAGACCAG TGTGTAGGCA TTTGCTTTTT 120  
 AGCAATATTT TTAAGTGCTC CATTTTAATG CCGAGGAATA AGTCTTTTGG CAACACAAAC 180  
 TGGTCAATAA TAGGTAATGC AGGTATGTTC AGGTTAAGCC AACAATGTTT TGCATTTTAA 240  
 TGCTTATTTT CTGTCAACAC TAATGAAGTC AACATTGCCT GAATGTCTGA ATAATGAAAC 300  
 ACATCCCNGT TAAAAAGTAT GTAAC TGAAA AAGAAATAAA AAANAAATTA AAAGGTAGGT 360  
 TTTTTTTAAA 370

SEQ ID NO:3616

LENGTH:370

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04268

SEQUENCE DESCRIPTION:

GATCCCATTA TATAGTATGT ATAGCTGAAA TCTGTAATTC AATCACTTTT TCTCTTTTAT 60  
 CCTCTAACCA AAAAATTGTT TAATTTTGCA TCCCAAATGT TTTTAATCTT TGTATATTTT 120  
 TNAAAAATCC NTTTCTCCTC AGCANTGCCT TTTTNGTGGT TGTAATAGA CTTACTTGCA 180  
 CTTTGAAGAT GAGTTACTCC TTGTCATCTT ACAAATATGT GATATGGTAA TTTNCATAAC 240  
 AGATGTCAGT TTTGANCCAA GAATTGGTGA TTTGTTTATA AGAAAAAAC TGGCTTCATT 300  
 NCTGTGNAAT TGCTCTTTGG NAAATTNCTN NTTNACACGT GTAAGCCAAC CTGAGGTACC 360  
 GTGATGGGTN 370

SEQ ID NO:3617

LENGTH:368

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04269

SEQUENCE DESCRIPTION:

GATCCCTGCT CAAGCAGCAC AGAGGAAGGG GCAAGACGTG GCCTGTAGGC ACTGTNTCAG 60  
 CCTGCAGAGA AGAAAGTNAG GCCGGGAGCN TGAGCCTGGG CTGGAGCNTT CTCCCCTCCC 120  
 CANTTGGACT AGGGGCAGTN TTAATTTTNA AAAGGTGTGG GTCCCTGTTT CCTCTTCCAG 180  
 GGGTCCAAGG GAACAGGAGA GGTCAGTGGG CCTGTTTTTT CCCTCCTGAC CCTGCATCTC 240  
 CCACCCCGTG TATCATAGGG AACTTTCACC TTAATAATCTT TCTAAGCAAA GTGTGAATAG 300  
 GATTTTNACT CCCTTTGTAC NNCNGNCTGA GGAAACGCAA ATAANAAGGG CAACATGTTT 360  
 CTNTTAAA 368

SEQ ID NO:3618

LENGTH:364

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04270

SEQUENCE DESCRIPTION:

GATCGGCCCA GCTCCTGAAC TNTGANGAGG CCATTCATAT GGCATTCTTG GAACAAAACA 60  
 CTGCACAGGT ACCAGCCTCT CCACTCCTGA CCGGGTTGGT GCTGAACAGT CAGGGATTGT 120  
 NCTTGAAC TA GACTTCTGAT GCTTCTTGCA ATCTTCTTTC ATCTTTCCCT GAAATACACA 180  
 AAATAAACAA NTACAATAAC AAATAGTAAT TAANTGACTT TCAGGATAAC ATCTAGTTGT 240

TCAGACTTCA CCCTTCACAG GTGTGTGTGT ATGTGTGTTT ATGTCTGTAT ATTGANGCAN 300  
 TTTGAATTTA TTTTACTGTA TATNTNCTGA GTAAANGACT GANATGNNCT NCTTGGGTCA 360  
 GAAA 364

SEQ ID NO:3619

LENGTH:363

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04271

SEQUENCE DESCRIPTION:

GATCTGAAGC CTTCCATAAA TNAGAGGCCA TTCATATGGC ATTCCTGGAA CAAAACACTG 60  
 CACAGGTACC AGCCTCTCCA CTCCTGACCG GGTGGTGCT GAACAGTCAG GGATTGTTCT 120  
 TGAAC TAGAC TTCTGATGCT TCTTGCAATC TTCTTTCATC TTTCCCTGAA ATACACAAAA 180  
 TAAACAAATA CAATAACAAA TAGTAATTAA ATGACTTTCA GGATAACATC TAGTTGTTCA 240  
 GACTTCACCC TTCACAGGTG TGTGTGTATG TGTGTTTATG TCTGTATATT GANGCAATT 300  
 GANTTTATTT ACTGGTATAT GTTCTGAGT AAAAGNCTGA AATGNNCTNC TTGGNNCNGG 360  
 AAA 363

SEQ ID NO:3620

LENGTH:361

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04272

SEQUENCE DESCRIPTION:

GATCCAGGAT GTACTTGGAT GAGGAGGCCT GGCTTATCTA GGAAGTCGTG TCTGGGGTGC 60  
 TTATTGCTGC TCCATACAGC TGTACGTCAG CCCCTTGCC TTCTCTGTAG GTTCTTGGCA 120  
 GCAANNNGC AGCTTCACT CAGTGACACA AGTAATTACT GAGTCCTAAT TTGATAGCCA 180  
 CCAACTGTAC CTGGGTAGGC AAAGTCAGAT TTTNGAGGAC CTTTTCTCTG ATTTGAAGTT 240  
 TTAATTACCT TATTTCTNT TATGCTTNC CTCTGTCTTG TAATCNTNCT CTTCTAAAA 300  
 ANCTCCCTA TAAATTCAAT TAATTTGGGT TAATTTTAGG ATAAACCCAT TTANTTCNAA 360  
 A 361

SEQ ID NO:3621

LENGTH:359

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04273

SEQUENCE DESCRIPTION:

GATCCAGATN CTTTCGGATG TCAGGGATAT TCACATTGAC ATGTCTNNNN AGTGTTCAG 60  
 GAGATTTTAG TTTGAATAGT ACAATTTTTT CTTCTTACAA CAAACTTAG AACGGCTTCT 120  
 AACTTATTC TTCATGGCCA AGAACTACC CTAAC TTATC TCGATAAATA TTTAGTTCTG 180  
 TCTTATTCT AATGTGTAAC ACAGGTTTAA AAAATAATAT ATAGATTTTG CATTATATAA 240  
 AAAAGATTTA ATTTATAGAA CCAACTNGA ACATATGTTT AATTTAGCCT AATCAGAAGG 300  
 TTACAGAAAA AGTTGCTGTA AAGATAGAAT AAAGGGTATT GTACTGGTCT GTTTTAA 359

SEQ ID NO:3622

LENGTH:356

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04274

SEQUENCE DESCRIPTION:

GATCTACAGC AGCTGCATCG AGGACTCCCA CAGAGGTGCT ATAGGGCTGC GCATTGCACT 60  
GGCCATCTCA GCTATAGCCG TCTTCCTGGT CTTGGTGTCT GNCTGTATCC TTCGATTGG 120  
CACCAGGTCT CTCTGCAACT CCATCATCTC CTTGAACACT ACAATNAGCT GTNCTGAAGC 180  
CCAGAAAATT CCATGGACAC CCCCTGGAAC TGCTCTGCAG TTTTACTCCA ACCTACACAA 240  
TGNTGAAACC TTTTCTTGGG TGAATTTGGT ATTGTGGTGT GTGGTCTTGG TGCTCCAGGT 300  
CGTGCAGTGG AAGTCTGAAG CCACCCATA CCGGCCTCTG GAGAGGGGTG ACCCTN 356

SEQ ID NO:3623

LENGTH:420

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04275

SEQUENCE DESCRIPTION:

GATCCCCCT GNCAGACACC AAAGCTGTGA ACAGAAAGAC TGCCTGGCCA GCAAACCTTG 60  
GGACATCAGC CTNGCCAGC CTGAAAGCAT CCGNAGTGAC CTAGAGAGT CTGATGCACA 120  
GTCAGACGAT GTGCCAGACA TCACCTCANA TGAGTGTGGC TCCCCCGCT CCCATACTGC 180  
AGCCTGCCCC TCGACCCCA GAGCCAAGG TGCACCGAGC CCAAGTGCCC ATATGAACCT 240  
CTCTGCCCTA GCCGAGGGAC AAAGTGTCTT GAAGCCAGAA GGTGGAGAAG CCAGAGTATG 300  
AAGTGGAAATG AATGCTCTG TTCTGAGANG AACTTGTAA CTGCATCTT TGGAAATTTT 360  
TTTTTTTTT GCCCAGGGG NAGGTTTNT GGTTTTAA TTNAGGNCN TTTGGGCAAN 420

SEQ ID NO:3624

LENGTH:352

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04276

SEQUENCE DESCRIPTION:

GATCAGAATT AAAGTAGTAC TATGAAATGT CCTTTTGAAT GTNAGGTCAA GAAATCCATG 60  
TACAGAGTCG TGCATTTCAT TGGCTGTAAC TGTCAACTT GCCTTGATT AGAAGTTAAA 120  
TCCCATCGTA AATACATCAC GAGGCCAGCT GTGTGATTC TGAGACCTAG ATGAGAGTCC 180  
NATTACTTCA AGCNTTGATT CAGTAAATNT TAAGCAGCAG AAGNCTTCGG ATGGGTTGAA 240  
AATCAATNTT ACAAGGTTT AACTCATAAA CCCATNNGGG NTTTTTTTTT TCCTCTGCAA 300  
NNGGTTNCTA AGGCTANTCC NTGGTAACAC TNTGGGAAAN AAATNTGGAG GN 352

SEQ ID NO:3625

LENGTH:348

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04278

## SEQUENCE DESCRIPTION:

GATCTCCAGT NGGCCCTTGC AGGCCCGGCC TCCTGCCTCT NGAAGGCCA NCACGGGGCC 60  
 GGCCTCGGCC TCGGCCTCAC AGCAGACTCT CCACGCCAG CTAGCTCTG CCTCACTGCG 120  
 GCCTCCCCAG TCCAAAGCTC CTGCCTTNG GCCACTTCGG CAGGTCCAGC TCCTGCCTGC 180  
 CAGTGGCCTC TTTAGGCCCA GCTCATTCTT CACGTCGGCC ATTCCAGGCC CCGTTTTTCC 240  
 CTTCCGGCAG CCTCTTGGCC TCTAATTTGT TTATNTTTT TGTATAAATC CCAAAATATT 300  
 GAATTTTGA ATATTCCAC CGGGGGNGTA AATATTTTGA TAGGTAAA 348

SEQ ID NO:3626

LENGTH:347

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04279

## SEQUENCE DESCRIPTION:

GATCTTTATT AAGACAGTGG AAAGTATACT ATTAAGTCAT CATAGCTTT TGGAGACTTG 60  
 TCAANACAG CAATNAGAAA ATAAGACCTA GCATACCGTG GAGAACCATT AAAAATTNA 120  
 NANGAAACAA CAAGTATTAT GTCAACTTAC TTCAAAGGCG AGTTTTGGGA TTNATGCAG 180  
 TAAAGATTCC CTGTTTTATG ATTGTCCCTT GAAAGTCAA TGGGGGCCTG TCCATTGTCC 240  
 TCTATTAANC TTNCAGAACT GTCACCAACA AATTTGAGTT GCCTTGTCTA GGGTTCTGGG 300  
 TAGTGAAGAT ATNNATNAT ATAATNAAAT AACTGTTAG TACTTAN 347

SEQ ID NO:3627

LENGTH:341

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04280

## SEQUENCE DESCRIPTION:

GATCAGAGGA GGAGTGTGAG TGTCTCATA CTCACAGCAA AAGGAGGGAA TTCAGGAGAG 60  
 GATTGAAGAA GCGGTTCTG TTTTAAAGC ATTTGCAATC ATTGCTGGAG AGACAGAACC 120  
 AACAGATGGG GAACAATGGC CAGGGACTCC AGGCCTGATT TAAGCCAATG CCGCCCTGTG 180  
 GTCTTTACCC ACGAATGGTG TGGAAAATNA GAGCAGGGAA GAGGATTTAC TCACTGGCTG 240  
 TGGAGTTAGG TCAGAAGGGG GNTGGAAAGA TGGAAACGTA TGGNTTTGGG GACATTTCTT 300  
 AATCTNTAGG CTTACCTTC CTAACTGAA ATTAAAAGCC N 341

SEQ ID NO:3628

LENGTH:341

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04281

## SEQUENCE DESCRIPTION:

GATCGACCTG TCATGTTTT AAGGTTATCC AGGCTGTATA TCTCTGGAAN AGAAGGGAAT 60  
 GGCAAAGAGT GGGAGTCTGA GTCAAGTTTG GTTTTGNTT NNNAAGAGAC AAGGTCTCTG 120  
 TAATCCAGGC TGCAGTACAC TGGCATGNCC ATGGCTCACT ATAGACTTGG GCTCAGCCAA 180  
 TCTTCCTGCC TCAGCCTCCT GAGTAGCTGG GNTTGGTTTT CCCAGGGCC ATATGTCAGC 240  
 TTATTTACCC TACTCACTTG GTGTNTCCCA GNCTGCCAGC CATGCTGTTC ATCCAGTATC 300

TTCTNNATGG GGATTACCTA TTAAGGGGAC TAACACAAAA N

341

SEQ ID NO:3629

LENGTH:340

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04282

SEQUENCE DESCRIPTION:

GATCATGGAA CCCCTCTTCC GGCAGTTGGC CAAATGTGTC TCCAGCCCAT ACTTCCAGGT 60  
 GGCAGAGCGA GCTCTCTATT ACTGGAATAA TGAATACATC ATGAGTTTAA TCAGTGACAA 120  
 CGCAGCGAAG ATTCTGCCCN NNCATGTTTC CTTCTTGTA CCGCAACTCA AAGACCCATT 180  
 GGAACAAGAC AATACATGGC TTGATATACA ACGCCCTGAA GCTCTTCATG GAGATGAACC 240  
 AAAAGCTATT TGATGACTGT ACACAACAGT TCAANGCAGA GAAACTAAAA GAGTTGCTAN 300  
 AANTGNAAGA NCGGGNNGAN GCATGGGTTA AATTAGAAAN 340

SEQ ID NO:3630

LENGTH:339

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04284

SEQUENCE DESCRIPTION:

GATCTGCCAC ATGTNTGAGG GTTGCAGAGC CCGCTGTGGA GGTAAGATTG GAAACACATG 60  
 NAGCAGAGGG AAGACATTGA AGAAAACATC TCTNCTGGAA TATTGGAAA AGAACACTCT 120  
 TCTGGACCTG GTTGAAGCAG GAAAGATGGA GGCAAAGTAG TGAAATAATC CAGAATTTC 180  
 ATGCTTTTNA ATGTNCTTAG TGATACTGAC CTGTGATAAT ATAATCCCA GGGAGGACTG 240  
 GGAACCTTAT CTCTTGAGAT ATTTGCATAA TTTATTTAAT TTAAGCCTCA TTCTCCTTTT 300  
 GTNCATTTTG GTAATAAACT GGATTGAAT TGTGAACAN 339

SEQ ID NO:3631

LENGTH:339

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04285

SEQUENCE DESCRIPTION:

GATCCAGCCA GTATAGAACT AGCTCTGTAG GGGTGAGGAG GACTNTGCTA TGTATCATCC 60  
 TNGATTGTNT TCCTTCAAGG AGCATTGCAC TTGCCTTCCC AGACCTTCCA CCTTAGGTTC 120  
 TGCTGCAAAA AGCACCAGTG CTGAAGATGC TGCAAGACCA AATCATAGCT CATAAAATCA 180  
 GGTCTGAGA TAGTTACCCA TAAAGAGGAA TCCTTTGAGT GTATGCCATT GGTGAGCCGA 240  
 TGAGCATGGA CCATAGAAGG GCTCAATGTA GANTGAAACT ACCCGTGTGT AAAAAGAAGN 300  
 TTGGNTTAAA ATGGCTACTT TGGATGGGNA CCAGTGTCN 339

SEQ ID NO:3632

LENGTH:337

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04286

## SEQUENCE DESCRIPTION:

GATCAGAGGG GAAACAAACG CCAAGGGGTT GGGAAATGGGT CGGCATCTGG AGTCTGAGAC 60  
 AGCTGCCCTC CTGCGTCAAG GGCTGGGGGC CTCAGCTTCC ATCCTGTGCC AGCCTCCATG 120  
 TGGACAGCTC AGCTTATTGT CCACCACCTG GAAATNCCTC GAAGCTTCAT NNGTCCAGGT 180  
 CAAGAGAATC CTGTTCCCAG ACCTCTGCCC AGCCAGGCCT TCCCAGCTCA GGGCTGACTC 240  
 CTGCACCAAG TGACGCACTT TTNATAACTG GTCTACCAAT GNCTCCCCTT CAAGTGAGAA 300  
 CTACCCTTTA CATTTAGGAG TGTGGCCCCG CAGTAAA 337

SEQ ID NO:3633

LENGTH:337

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04287

## SEQUENCE DESCRIPTION:

GATCCCTGTA TGCNGCCAAG GATGGGACTT CCAGCTAATG AATTTGTACA TGCAGCCAAA 60  
 TTTACAGGAA TTTTTTTAAA AGGCAGAAAA ACTTGAAATA CCAACATTCT GGCAAAAAAN 120  
 ANTCAGTTTT ATGANGAGTA AGTGGAACCT GGGNTGCAGG ANCAAAAGAG GGAAATGTTG 180  
 GGCAACATT TTNNTGGGAG CTCCCTTCGC TGTGTGTCAG CAGAAACAGA TTCTNAGTTC 240  
 ATTTTACTC CCACTGTATT ATAGTTTANC AAAANTNGTT TATATCTTGG AAAAAAANCT 300  
 TTCTGTTTAA AAAANTTAAN CAAGTGAATG TNGGAAN 337

SEQ ID NO:3634

LENGTH:390

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04288

## SEQUENCE DESCRIPTION:

GATCCCACTG ATTGGCCAGC CGAGCGAGAA CCAGGCTGCT GCATGGCACT GACCGCCGCT 60  
 TCCAGCTTC TCTNAGCCGC AGGGCCTGCN ACGCGGGCAA GCGTGCTGCC TCTNTNCTGT 120  
 GTCGTTTTGT TGCCAAGGCA GAATGAAAAG TCCTTAACCG TGGACTCTTC CTTTATCCCC 180  
 TCCTTTACCC CACATATGCA ATGACTTTNA ATTTNACTN TTGTAGTTTA ATCCTTTGTA 240  
 TTACANCAATG AAATATAGTT GCATATATGG ACACCGACTT GGGAGGACAG GTCCTGATTG 300  
 TCCTTTCTCC AGTGTACATG TTTTACTCAC ANATAANATT NTTTCAGCAA GTAAAGNNGG 360  
 ANNGGGTTTT GGTNGNGNGG NGTNGGGTGN 390

SEQ ID NO:3635

LENGTH:73

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04289

## SEQUENCE DESCRIPTION:

GATCTGGCCA TTTGGTACAT AATCCAGCAC AGATAAGCTG GGTGGTAATG ATAATAAAAA 60  
 TGGTTTTCTC AAA 73



SEQ ID NO:3636

LENGTH:328

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04290

SEQUENCE DESCRIPTION:

```
GATCACCTGG GTTTCCTTAT TTATCGACTG TGTCATGACA AGGAACTTA CAAACTGCAA 60
CGCAGAGAAA CTATTAAGG TATTCAGAAA CGTGAAGCCA GCAATTGTTT CGCAATTCGG 120
CATTTTGAAA ACAAATTTGC CGTGGAACT TTAATTTGTN CTTGAACAGT CAAGAAAAAC 180
ATTATTGAGG AAAATTAATA TCACAGCATA ACCCCACCCT TTACATTTG TGCAGTGATT 240
ATTTTAAAA GTCTTCTTTC ATGTAAGTAG CAAACAGGGC TTTACTATCT TTNCATCTCA 300
TTAATTCAAT TAAACCAATT ACCTTAAA 328
```

SEQ ID NO:3637

LENGTH:328

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04291

SEQUENCE DESCRIPTION:

```
GATCCTGTGA ACCGTTACTT TGCCTAAATC ACTTGAGACT TGAGTNTTTA ATAACAAAGC 60
ATCAATATTC ACTAAAGTCA ATCTNTTTN ANTTTCTGTN ACTGGCTAG AAGCTCTTGA 120
CACTAAGGGA TTAGTGTTAA TTTCCCTGG GGGTGTCCA CTAGGGCATT ACTGTATAAT 180
GACTTGATGT TGCCACATAG ACTTCAAGAT ATATAATATT TTNAGGATTT TTTGATTGG 240
CCTATGTTTT ATTGCATAGT GTGAACCGTG TAAAGCTTGG TTAACCTGTA TATAGATAGC 300
TTATTGTTGA CTAGTTATAG TGTATTTN 328
```

SEQ ID NO:3638

LENGTH:326

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04292

SEQUENCE DESCRIPTION:

```
GATCCTTTCC CTGGATACAT AACCCTAGTA GATAATGTTA CTGCAAGATG TAATGNCCAA 60
ATCCAACCTA CTGCAATNT TACTATGGAA ATCTCAATGC AAAAGTAGCC TTTGTNATTT 120
TTTTTTTAAA CCGTCTCCAT AACAGANCAC TTAGAATTAT TAGCCATTTG CTGCAAAGTA 180
TTTGTTTTAA AATGTCTGGC ATATACACCA CTAACATTTA ANTGCCAAC ATTCGGTCTA 240
TACGTGAAAA ACCTAGANGA AANGCCCTGT TGGAGTTTGT ATGTAGAGTG CAATANTACA 300
TCAATAAAGG TATTTTAAAA TGGAAA 326
```

SEQ ID NO:3639

LENGTH:326

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04293

SEQUENCE DESCRIPTION:

GATCTGTTGT ATGTAATAAG TAACACAGAG TTTTAAACA AATTAATTAT TTAGCTTTAT 60  
 TGAAGTTTGT NTTTTNCCTT CCGAACCTGG AGTATCATAT TATAAACAGC AGTTTCACAC 120  
 CAGAATAGCA GTGCCCTTNC TTTTGTACA TACTGATTGG NCCTTCTTT ACTGTTACGT 180  
 GGACACTTTC TATGTTAGTT TTGATGCATA ATTCTTTGAA TCCTTTTATA CAAACTAGAA 240  
 TGTATGTGTA AGAATACCTG TCCCTGCAAT GTAGTAACTA CAAACTTATT TTTAAATAAA 300  
 TAGAAAACCT GTTTTTCTAA GCTAAA 326

SEQ ID NO:3640

LENGTH:325

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04294

SEQUENCE DESCRIPTION:

GATCCAAGAG TTTAGTGATT TCAAAAGCCT TGGTCTCAGG AGAAGATTAA ACTTTCATAT 60  
 TGGGCACTGG TTCACTTTAA AACACACACA TACACACACA AAACAATTTT TTAAGAAATC 120  
 CTAATAAGTA ACATACCCAA AATGCTCTGT CTTGAGTCAT GAGAACCATC AGTTCTTGAT 180  
 ATTGTCTAGA CTTGCATCTA GAGCTACGTT GTAAAATTCT TTTAGGCATG TGTTAGATTT 240  
 CTGTGTAAC TTTGTTTAAA TGTAAGCTTC ATACTACATT GTCAGTTTTT GTCTTAATAA 300  
 AACTATAGAT TTATAATCCC TGAAA 325

SEQ ID NO:3641

LENGTH:391

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04295

SEQUENCE DESCRIPTION:

GATCGGAATT TCCACCAATC AGCGGGAAGC CTCGGCCCTG TAACTGCTAA TGGGAGACAG 60  
 CAGCGCCACG CCACAGGCTT TTCCCTGGT TTCGGGAGGG NTGGGAGGCC AGGTGGGGCT 120  
 CCCGNCCAGA CCCTTTCCCG AGGTCCGNCC TCTCCGCCTT NTCNTAAAT TCCTCTTTTG 180  
 AGTNCCTCC CTTCCGGTTG AGAGGCGGGG GTTGGCCCGT AGTTGTACAC TCAGTCACCC 240  
 TGAAGTGTGG AGGNGGNGGG NCTCCNTTGT GGAAGTATT GCCTGGGGAT TTGGTNTGTT 300  
 TTATTAAGGG ATTTGAAAAA ATTCAGATGG ACTTNACTAG TATGGACTGT TNGGGTAAAT 360  
 ATTNCGCTNC NGGGTTAATA AAATGGACAG N 391

SEQ ID NO:3642

LENGTH:324

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04296

SEQUENCE DESCRIPTION:

GATCCAGTCA ATACATGCAG ACCAGTAAAA TCTGATTTGT GCAGAGTTCT CCATCTGACT 60  
 CTCACCTATT TCTGTAGATA TATACATATA TAAATACAAG TATGTNCTTA CGGCACAGTA 120  
 TTGCTGACCT TTAGTTCGAG GTTTTGTGCG TTGTTGTTTA TTTTCTTCCT CTGCAAGTG 180  
 CTATCCATGT GAGTGTGTGA AGTTTCTCTA ATAAGTAAAA CACAGGCCCT TTCCTTGTT 240  
 TGTTTTGTGT TAGTTTATTG TAAACAGCCA TTTGTTGTAA ATNATTATTG GCATTAAATT 300

ATAATTTATG ATTTTCAAAG CAAA

324

SEQ ID NO:3643

LENGTH:323

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04297

SEQUENCE DESCRIPTION:

GATCCAGTCT AGGCCCGTAT GTTGCAATTT GCTGTCATGT CTTCTTAGTC TCCATCNCAT 60  
CTCAGTGGTC TTTCTTTTC CATGACTGTG ACAGAAATGA TTTGTATCCT TCATATATCT 120  
GCAGTCACAT GAAGTCTATT TGTCCCACTA CTGGTGACGT AAATTTTGGT AACTTGGTTG 180  
AGGGTGGTAC CGTCTAGGTT TCTCCATATT AAGTTGCTAT TTNCCCTTGT GTATTTAATA 240  
AGTATCTTAT AGGGAAATCC TTTGAGACTA TGTAATATC ATATTACATG TATTNGCCT 300  
GTTTTAGCAT CTTTGAAGA TAN 323

SEQ ID NO:3644

LENGTH:320

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04298

SEQUENCE DESCRIPTION:

GATCTGGAGC ACAAGGAAC CCCATACATT CCTAGTGGGA ATGCCTAATG TTAGAGTCTG 60  
GAAGACATTT TGGCAATTNC TTAACCAAGC TCTTCTTACC ATAAGATGAA GCAACTCCAC 120  
ACCTTGGTAT TTACCCAAAC GAGTTGAAAG CTTATGCCCA TACAAACACC TGTACAAGAA 180  
TGTCTATAGC AGCTTTATTC ATAATTGCCA AANCTTGAGG GCATCCAAGA TATCACTTAA 240  
TGGGTGGACA GATAAGCTGT GGTACATCTA TACAATGGAA TATTAAGGTG CTAAAAAGAA 300  
ATGAGCTCTG AAGCCACAAA 320

SEQ ID NO:3645

LENGTH:319

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04299

SEQUENCE DESCRIPTION:

GATCGGGATT AATATTAGTG CATTTTAAA ACACTTAAAA GTTTACAAN TGTATTTGTG 60  
TATTTCTGT TTTGGTGCCT GTTTATAGA AGATGATTGA NGAATCACTG AAGATTAAAA 120  
TAAAAAGGA ATTAGAAATG GAAAATGNAT TAGAAATGAG TAATCAAGAA ATAAAAGACA 180  
AATCTGCTCA CAGTGAAAT CCTTTAGAGA AATACATGAA AATCATCCAG CAGGAGCAAG 240  
ACCAGGAGTC GGCAGATAAG AGCTCAAANN NGATGGTCCA AGAAGGCTCC CTAGTGGACA 300  
CGCTGCAATC TAGTGACAN 319

SEQ ID NO:3646

LENGTH:318

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04300

## SEQUENCE DESCRIPTION:

GATCATAGAA GAAGAANCCA GTAATTGANC AAATCCTATT TAATGACATC CTTGTAGCAT 60  
 AGATGGTCTA TAATGCTGAC CACAGATTTC TTAGAAATGC TGCTCTCTCT ATTAACTAA 120  
 CATTTTGTNC AGTTTTCCT CCAGTGGGAG CAGAAAGGT TTTNCAGCT GTTAAATCCT 180  
 AAAANTCAAT ATAATTNATT TATGTAAGAA AAATAACTCA ATCAATATAT TTTGAACCT 240  
 TTTAAGTACT AATTTNNTNT TTATCAAGTA GAAAAAAAT GTATTGCCC TAAATCCTTA 300  
 AAATACAAAT GCTATAAA 318

SEQ ID NO:3647

LENGTH:317

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04302

## SEQUENCE DESCRIPTION:

GATCCTGAGG CTTTGGCTGA AATTCTGCTT GAAACTTGTA AATCAATCAC ATATTCTTTA 60  
 GAAAATAAGA CCTACTCATC TGTGAGAACA GAAGCTTTAT CTGTGATAGA ATTGCTGCTT 120  
 AAAAACTTG AAGAATCTAA ACAGTGGGAA TGTTTGACAT CTGAATGCAG AGTGCTCCTA 180  
 ATTGAGTCTT TAGCTACTAT GGAGCCAGAC AGCAGACCTG AACTGCAGGA GAAAGCAGCG 240  
 TTAGTGAAGA AAACACTTGA AAATCTGGAA TAANTTAGAN GGGGAAGAAA CAAACAAGTG 300  
 CCATGTTCAT TGGGGGN 317

SEQ ID NO:3648

LENGTH:317

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04303

## SEQUENCE DESCRIPTION:

GATCCTTCTC CTTCCTGGG ATACAGCACC TCCACCCTGC CAGGCCACCC NTGTAAAGGC 60  
 AGCCAATTCA GAGCCACCTC TTATGCCTGC ATCTCCCCA ACAATTCCTG CTGGGAAACC 120  
 ACTCCTCGTA TGGTGTATC TACACCAAGT GGTTCAGC TTGAGAAGAA TCAAGTTCTA 180  
 CAGGGCTGCT TAAACACAG GTTGCTGGGT CCTGNTCTC AGAGTTTTG ACTCAGTCTT 240  
 GGTTGAGAAT TTTAGTTCT AGAAGCTCCT GGGTAATGCT AATCCTCCTG TTCTAGGGGC 300  
 CATAGTCATT GTCCATN 317

SEQ ID NO:3649

LENGTH:317

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04304

## SEQUENCE DESCRIPTION:

GATCTACAG CGGCTGGCCA CCATCTACCA CAACTNCCTC CTGGACCGTG AGAAGTCGCT 60  
 CTTNTTCTAC CAGAAGGCCA GGACCTTCGC CACAGAGCTC AACGTCCGCA GGGTCAACCT 120  
 GCCTCCTCTG CCACTCTGCG GGTGGGCCCC CTGGTTGGCC CCCAGCCACC CTNGCTGAGG 180  
 ACAGCATCCA AGGGAGTGGG TTTTGTGCAA GGGCTAGGGG TCTCCTGCCT NTCCTGGTGT 240

CGNCGGTGGC TCATTTTCTN GCAAATNGAG GCACGAACGC AGGGNCCAAA TAGCAATAAA 300  
TGGGTTTTGT TTTTAAA 317

SEQ ID NO:3650

LENGTH:317

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04305

SEQUENCE DESCRIPTION:

GATCTATGCA ATTTTAAAC TAGTAATGGG CCAATTAAAA TATATATAAA TATATATNTT 60  
NCAACCAGCA TTTTACTACT TGTTACCTTT CCCATGCTGA ATTATTTTGT TGTGATTTTG 120  
TACAGANTTT TTAATGACTT TTTATAATGT GGATTTCCTA TTTTAAAACC ATGCAGCTTC 180  
ATCAATTTTT ATACATATCA GAAANGNCG ANTTATATCT AATTATACA AAATAATTTA 240  
ACTAATTTAA ACCAGCAGAA ANGTGCTTAG GAAAGTTATT GTGTTGCCTT AGCACTTCTT 300  
TCCTCTCCAA TTGTAAA 317

SEQ ID NO:3651

LENGTH:316

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04306

SEQUENCE DESCRIPTION:

GATCTGAATT CTAAAGCGTC TTTCATTGTT TACTTTTAGG ATGAGGAAGT ACAGACAATT 60  
GGTCAGATAG AACTGTGCCT CACTAAGCAA GACCAGCAGC TGCAAACTG CACCGAGCCG 120  
GGGGAGCAGC CGTCCCCCAA GCAGGNNGTC TGGCTGGCAA ATGGGGCCGC CGAGAGCCGG 180  
GGTCTGAGAG TCTGTGAAGA TGGCCAGTC TTCTATCCCC CACCTAAAAA GACCAAGCAT 240  
TGATGCCCAA GTTTTGAAAA TATTCTGTTT TAAAAAGCAA GAGAAATTCA CAAACTGCAG 300  
CTTTCTAAAA AACAAA 316

SEQ ID NO:3652

LENGTH:374

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04307

SEQUENCE DESCRIPTION:

GATCCTTGGG TTGTAAAGAG AGTAGAAACC CTAGGNAGCA GTGCTTTTGG GTCCTAGAAC 60  
CTGTTGAGTT TCTAATGAAT ATTTGTAGAA TCTNATAAAA CAGTTTAAAT ACAAGCTTAA 120  
GTGGCTTATG AATCCTGTNA AGCTCATTTA TGGNCTAGTG TAAACAATG TGAAGCTCTA 180  
CTAAGTNCTG TCCTTAATCA TAAATAATAG CCCCTTGNGG NCTAGCCTGT CCTCTGGTCA 240  
CCTTACCAGT TGGGTTGCAC ATTGTGTGGT CGTCCAATTA AACTCAATCT TNCGTGTGNC 300  
AGGNGTAGT CTNTCCAATC ATGNCATAGN TTTCATCTGG TTTTGNCTG GTGGACGNAC 360  
CTTCGGANTA ANTN 374

SEQ ID NO:3653

LENGTH:316

## DEMANDES OU BREVETS VOLUMINEUX

LA PRÉSENTE PARTIE DE CETTE DEMANDE OU CE BREVET  
COMPREND PLUS D'UN TOME.

CECI EST LE TOME \_\_\_\_ DE \_\_\_\_

NOTE: Pour les tomes additionels, veuillez contacter le Bureau canadien des brevets

2153480

## JUMBO APPLICATIONS/PATENTS

THIS SECTION OF THE APPLICATION/PATENT CONTAINS MORE  
THAN ONE VOLUME

THIS IS VOLUME 4 OF 8

NOTE: For additional volumes please contact the Canadian Patent Office

## DEMANDES OU BREVETS VOLUMINEUX

LA PRÉSENTE PARTIE DE CETTE DEMANDE OU CE BREVET  
COMPREND PLUS D'UN TOME.

CECI EST LE TOME \_\_\_\_\_ DE \_\_\_\_\_

NOTE: Pour les tomes additionels, veuillez contacter le Bureau canadien des brevets

2153480

## JUMBO APPLICATIONS/PATENTS

THIS SECTION OF THE APPLICATION/PATENT CONTAINS MORE  
THAN ONE VOLUME

THIS IS VOLUME 5 OF 8

NOTE: For additional volumes please contact the Canadian Patent Office

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04308

SEQUENCE DESCRIPTION:

GATCAGGACC AACCTGGAAT ATGCCAGATT TGGCTATGCT TTTTAANACA TTNATTGGA 60  
CAGCTCACCA ACCCCTGAAG GGGCCGTTAA GCCTGGTTAG TTTTNTACCT ACTCCGAGTN 120  
TCCTCCCCTG CCCACCAGA TTGCTGCAGG GGC CGGTGT GCCTGGNAGC CAAATTNTTG 180  
ACACTTCTTT TTTCTATGC ACTGGTTTAA CACAGCTGTN ATTTTNTTT CAAAATTGCA 240  
GCAGTCCAC AAGATGTNTG CATTGGACA AATAGTACTT AAAACAAAN CAAACAAGCA 300  
CTCAGCCCAG TTCCTN 316

SEQ ID NO:3654

LENGTH:315

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04309

SEQUENCE DESCRIPTION:

GATCTAATGC AGAACTTATC AGATATTGTG AAAAATCAGT GTGGGAGGTA TTCAGTCAA 60  
AGTCAGAAGG AAATGTATTA TCGTTATAAT TTCAAACCTT AAGAAAGCCT AAATTACCA 120  
TTGCATATCA AATTTTTTGT ATAATGTAAG GAAAACTTAA ATCCCTCCA TATCCTAAT 180  
GGCATTATA ATAATATGAC ACTTAACCTT GACAGCTAGA GTCTTACTTT ATGCTAATGC 240  
TAGATATCTA TTTNAANTT CCACGTGTGT AAACATGCTA TACTCTTCTG ATATTAANCT 300  
TACTAAGTAC ATAAA 315

SEQ ID NO:3655

LENGTH:315

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04310

SEQUENCE DESCRIPTION:

GATCCAAGAA GAACTAGAAA AAAAGTTGTT TGCAGGCTTG CAACCTCTCA NAAATTTTAA 60  
GGCTAGCTCT TCAACTATGT CTTTNAAAA GAATATGTCT GCCCAGCA GCCAGAAGTG 120  
ACAGATTCT TGTGAATGTT TACATCCTGC TGCTGATAGG TTCAAGGAAT TCTTTAAACC 180  
AGATTCTGCT GACATGAGAA GCTCCAGTGA TTTGTTTTT TGAAGGTCTG TATCAGAGCA 240  
AGCCTAACAT CTAAATAANG TTTGATTCTG GATTTCCAG GTGGGAAATA AATAAGAAA 300  
ATTTGGCTTG TCAA 315

SEQ ID NO:3656

LENGTH:347

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04311

SEQUENCE DESCRIPTION:

GATCCGTGCC CGCNTCCAGG AGAAGTTGTC ACCTCCCTAC AGCTCCCCAC AGGAGTTTGC 60  
CCAGGATGTG GGCCGCATGT TCAAGCAATT CAACAAGTTA ACTGAGGACA AGGCAGACGT 120



GCAGTCCATC ATCGGCCTGC AGCGCTTNTT NGAGACGCGC ATGAACGAGG CCTTCGGTGA 180  
 CACCAAGTTC TCTGCTGTGC TGGTGGAGCC CCCGCCGATG AGCCTGNCTG GTGCTGGCCT 240  
 GANTTCCCAG GAGCTGTCTG GTGGCCCTGG TGATGGNCCC TNAGGCTGGG GGCCCCATGG 300  
 TCAGCCCAGN NTGGGTTCTG TTCTNTGGNN CTTGTCANNC NNAANCN 347

SEQ ID NO:3657

LENGTH:313

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04312

SEQUENCE DESCRIPTION:

GATCATAACT GAACCAGAAT TTGGATTATA GANGTGCACT TCCTAGCTGT TTTTATTTA 60  
 GGTATAGGAA CACACAATGA GAACCTTATG TTTAGAATGT AGCAGTAACA ACAGAGGGTA 120  
 ACTACACTGC AAGACTTAAA TGGTTTGAGC ATGTGACACT ATCCTTTTGT TGGGGGGAGC 180  
 AGGGTATAAN ANTATACATA CAGGAGATTA GTTTAATAGT AAAGTTTTAT ATGTATGTTT 240  
 AACTTCCATG ATATTTATNA TTTNGTAGAG ACATTGTGA TTGTNTAGAG TTCTNGTNTT 300  
 TTTTCTATTT ATN 313

SEQ ID NO:3658

LENGTH:307

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04313

SEQUENCE DESCRIPTION:

GATCTTAAAA GTGGAAAGCA GAAAAAATAC TGTTTCCTGA AATTNAAAAG TTTTGGCAGT 60  
 GCCCAGCAGG CCCTCAACAT TCTCACAGGC AAGGACTGGA AGCTGAAAGG CAGGCATGCC 120  
 CTAACCCCCA GGCACGTCCA TGCCTGGNTC AGAGGCTTAC CACCTGANTC AACAAGGCTC 180  
 CCAGGGCTTC GTGTTGTACC TCCCCCCTTT GAACAGGAGG TCTGCGAGAC TCTGAAACTG 240  
 GACCACCCGA AGATAGCAGC CTGGCGCTGG ANGCGGAAG ATTGGAAAGC TCTACAACAG 300  
 TTTGTGN 307

SEQ ID NO:3659

LENGTH:306

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04314

SEQUENCE DESCRIPTION:

GATCCCCAGA GAGGTGGCCC TGGACCTGGA GTCAGGAGGC GGTGTCCAGA AGAGTCGCTC 60  
 ATCAACCCCG GGTTCAGAG TAAGAAACCA GCTGGTGGCG TGGACTTCGA TGAGACCTGA 120  
 AGGTGCAGCA CAAGCGTGGC CCCGCGGGA GTCCGCCTAT NAGGGGAGAG GCAGTCTTTG 180  
 AGGCCCCCAT CAGAGACCCC CCGCCACCAC CTCCACCTGC CTGTCTGGG CCAGGACTAA 240  
 CACGGCTCCT CAAATTCCTT CCCTGTCAAA TAAACAGCTC CTTGTTGG AGGCTCTNGT 300  
 GGGAAA 306

SEQ ID NO:3660

LENGTH:371

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04315

SEQUENCE DESCRIPTION:

GATCCCCTGA GCAAGTCAGA AGTTACTCTC ATCAGTCGTT CATGGTCACA ACCTGAGGTA 60  
CTCTGCTGAG TGGGCAAGGC TGAAGAAGAG GCCTGTGGAA TGCAGCATT A CCTGCTGGAC 120  
AGAGCAGGGC AGGCAGTTCT ATGCCTTGA GCTCCTGACT GCAGGGACTC TGTCCCCACA 180  
CTCAGAAAAGA CTCAGCTCAC TCAATGAGAG AATGTGATTT ACTTTATAGA ACGTATAATC 240  
AACTTTGTTG AATAATTTGT TCTATTAAGG CTGTCTAAAG TATGTNATGT CTTCATCATA 300  
GTATGAAGTG TTGAAAATTA ATAACGGGCC TAGTTTAGGA AAAAGCTGCT TAAANGNGTG 360  
TGGCCCGTAN N 371

SEQ ID NO:3661

LENGTH:304

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04316

SEQUENCE DESCRIPTION:

GATCTGTATT GATATTTGAT AGTGAAAATG TTTATTCAAT TTTTCCCCAA AATGTATTTG 60  
TTCTCTTAC TTGTTTATTC AGCTGTGGTG ACTTCAAAT ACTTTTCCA GGTGACAAAA 120  
AAAAACTCAG AAAAATTTT AATCTTAATT GCATTAATAC TATAAATTGA TTTGGAAGGA 180  
TTTAACATTT TATAATATNG GNNTCCTCT GCAGTAATGT GGCATATTCT TCCNNNGTT 240  
CAAGCATTAA AAAAATCTCT TAGCAAAGCT GCACAGCCTT CTTCATAAGG GTTCTCTATA 300  
TTTN 304

SEQ ID NO:3662

LENGTH:303

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04317

SEQUENCE DESCRIPTION:

GATCTGCGGT GGGCCAAGAG TATCCAGGGA GAAACCTGTC CCTGGCAGGG CTGGAGCAGG 60  
GACACTCCAG GCCCAGCTGA GGCTTCCTGC TCTGCATGGC AGGGGACATC TCTNACCTGG 120  
TCAGGACCCT GGAGGTGGGA CAGCTGGTGC TAAGGGAATG TNAGCGCATC AGGGTTGGGG 180  
AGAAGCAGTG GGTGGTCCAG GAAACCCCTG AACAGCTGG CCCTGGGGTC CCCTTTCAAG 240  
TGTTTCCAGT TGTGGCAAGG GGTCAAGGAG ACCTTGCATT GCAAATCTNT TAGAAAAAAC 300  
AAN 303

SEQ ID NO:3663

LENGTH:302

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04318

SEQUENCE DESCRIPTION:

GATCTGAAAG ATTACATTTA GAACATTTAG TACTATTACA CTCTCAGAAA CTGTNGTAAA 60  
 AAGTCACATT TTCAAACTT CATGCATATT GTATTCTTGT TGGAAATAAG TCCTATAGTT 120  
 TCTTAATTGT CTTTCATGCCG TCCATATTTA ACAAACATTG CAAGTCCTTT TTATATTTGG 180  
 GTAATNATTT GTAATTTAGT GAAGGAGACT AGGGGATGTT TTCTTCCAAA GGAATTTAA 240  
 AATCAATTTT ATGGTATTTT GAAAGTAAAA TACTCCTTAA CGTGTCAATA TTTTAAAAAT 300  
 GN 302

SEQ ID NO:3664

LENGTH:301

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04319

SEQUENCE DESCRIPTION:

GATCCTCTCA GAGTGCCAGG CATCCCCCCC GNACCAGCAG AGGCTCATCT TTATNAGGCA 60  
 AGCAGCTGGA AGATGGCCGC ACTCTTTNTG ACTACAACAT CCAGAAAGAG TCGACCCTGC 120  
 ACCTGGTCTT GCGCCTGAGG GGTGGCTGTT AATTNTTCAG TCATGGCATT CGCAGTGCCC 180  
 AGTGATGGCA TTACTCTGCA CTATAGCCAT TTGCCCCAAC TTAAGTTTAG AAATTACANG 240  
 TTTCAGTAAT AGCTGNACCT GTTCAAANTG TTTAATAAAN GGTTCGGTT GCATGGGTAA 300  
 A 301

SEQ ID NO:3665

LENGTH:300

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04320

SEQUENCE DESCRIPTION:

GATCTGAAAA ATGAAGTTTG GTATCAAAAA NGTCATGACC CTGTATGTAA AGCAGAAAAC 60  
 TTCAAATCTG ACTGTTTCCC ATTACCTGCT GAAGTATGTC TCCTGTTTCT TTTCAAAGAG 120  
 GAAGANGAGT TTACAACAGA TGANGCAGAT GAAACTAGGA GCAATGAAAC CCAGAATCCT 180  
 CATAAACCAT CACCTAGCAG GCTGTCAACA GGTGCATCTN CTGATGCTGT CTGGGNTAAT 240  
 GGCATTGATG ATGCTTATTT TTTAGAAGCT ACTGAAGATG CTGAATTAGC TGAAGCTGCN 300

SEQ ID NO:3666

LENGTH:300

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04321

SEQUENCE DESCRIPTION:

GATCACTNAA TGGTCAAGTG GAACAAGCAC TACACGACTA ACCCCTATTG GGGTTTTTAA 60  
 CTTAAGGGAG GCTAATTTTT AATTAACT GCTCGAGATA TGAGTTCTGC AAAAGGTGGT 120  
 CCGCATCCTT GGCCCTCTGG ACATTATCAC TAAATTGCTT GTGCCTGTTA ACAAGAATAC 180  
 TGACCAGAAT GCTCTTCATG TAGCTTATAC AGTTGGTTCA CTTTCATGCGG TTCTTGACAT 240  
 GTTTATTTCT ACCCTTAATG CAATGAAATG TTTCATTAAT AAAAAACCAC TTTATATAAA 300

SEQ ID NO:3667

LENGTH:417

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04322

SEQUENCE DESCRIPTION:

```
GATCTTTCTG GCTCCACTCA GTGTCTAAGG CACCCTGCTT CCTTTGCTTG CATCCCACAG 60
ACTATTTCCC TCATCCTATT TACTGCAGCA AATCTCTCCT TAGTTGATGA GACTGTGTTT 120
ATCTCCCTTT AAAACCCTAC CTATCCTGAA TGGTCTGTCA TTGTCTGCCT TAAAAATCCT 180
TCCTCTTTCT TCCTCCTCTA TTCTCTAAAT AATGATGGGG CTAAGTTATA CCCAAAGCTC 240
ACTTTACAAA ATATTTCTCT AGTACTTTGC AGAAAACACC AAACAAAAAT GCCATTTTAA 300
AAAAGGTGTA TTTTCTTTT TAGAATGTAA GCTCCTCANG AGCAGGGACA ATGTTTCTG 360
TATGTTCTAT TGTGCCTAGT ACACTGTAAA TGCTCAATAA ATATTGATGA TGGGAAA 417
```

SEQ ID NO:3668

LENGTH:298

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04323

SEQUENCE DESCRIPTION:

```
GATCTCTGAA AGCTCAAATG GATGGAATTT AGTTTGCGGG AAAGAGGCTT TGCTTTGCGC 60
ATATCAGGCT TAGGACTGTG GGAGGCTTAA GAAGCAGATG CTTCTTNNAT TGTACTCTTG 120
TNCTGCCCTT GTTTTTTGAA GGCTCTGACT TATAACTNCT GTATCAGAAG AAACATTTTG 180
ACAGTGTCTT GGTGGGAGAT GAACATCCCT AATTGACATG TGATGACTAT TTCTNATTCC 240
ATTCTCTTAA GAGTCATTGA AATTTTGTTT TGCTTGTTTG TTTAGCTTCA AGGTCTTN 298
```

SEQ ID NO:3669

LENGTH:294

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04324

SEQUENCE DESCRIPTION:

```
GATCATCTCT ATATCTAATT TGTATTATNA CTAATCTTAT TCCAACCTATT TNCTTTATNA 60
TACTGAAACA GTTTGTNCCT TCAGTCTCTG CTTGGGCTAC CTAAGAGGGA AGGGCCCCCT 120
ATCCTGTAAT CACATGACTT ACTTCACCTT GTCAATCACT GAGAAGATTG ACCCTCCTTA 180
CCCTGCCCCC TTGTCTTGTA TGCAATAAAT ACCAGTGGGC CTAGCCCTCT GGGACCACTA 240
CCGGTCCCGG GGTCTTGATG GTAGTGGNCC CANAGCCCAG CTTGCNTNCA CAAA 294
```

SEQ ID NO:3670

LENGTH:293

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04325

SEQUENCE DESCRIPTION:

```
GATCAAGAGG CCACCAAGTTG TACTTCAGCA CCAATGTGTC TTACTTTATA GAAATGTTGT 60
TAATGTATTA ATGATGTTAT TAAATACTGT NCAAGAAGAA CAAAGTTTAT GCAGCTACTG 120
```

TCCAACTCA AAGTGGCAGC CAGTTGGTTT TGATAGGTTG CCTTTGGAG ATTTCTATTA 180  
CTGCCITTNN NTNCTNACTG TTTTATTACA AACTTACAAA AATATGTATA ACCCTGTTT 240  
ATACAANCTN GTTTCGTAAT AAAACTTNTC CCTTTTTTA AAATGNAANT AAA 293

SEQ ID NO:3671

LENGTH:292

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04326

SEQUENCE DESCRIPTION:

GATCTATAGT ATTTAATGT GCATCTACTT TAAATNAGTC ATCTTGGGGT TTNATAATT 60  
CCCTTATGTT CTTGCCCTC TACACTTGAA ATAACAAAAT GCCTTAATTT TATGGATTAG 120  
TTCTCTTATA GTAGACAGGC AGCTATATGC AGCAAAACCA ATAAAGTTAT TTTCAACTT 180  
TCATAGTTGT AAAATATCTT ATAACAGAAT ACAAACAGC TANGAAAACA TGCCACATTT 240  
NATTTINGCA TTTTCAAATA ATTNGTTTTT GGTGTAAGCA CAGGATAAAA AN 292

SEQ ID NO:3672

LENGTH:291

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04327

SEQUENCE DESCRIPTION:

GATCAAGGAT GCAACCTCAG GTTGAGAAAG AAACAGGGTT CCCTGGGCCC ATTAGACTGT 60  
TTGCAGGGCA TCACTGCTTC CCCCTGACAC CTCACAATA GCAAAAATTG TCTTTGTCTT 120  
TGGAATNAT AGAGGGATTG GGGTATCCAG ATTGTGCAGA TGCAAACTTA GGCTGTCTTG 180  
ATGNNACTT AGAACCACAG AAATGCTTTT AAAATGCCTG TTTTAAGATG GAATTGTTGT 240  
TTTNATAATT TGATTTTAGT GCTAAATAAA TGATTGGCTT TGTACATGAA A 291

SEQ ID NO:3673

LENGTH:291

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04328

SEQUENCE DESCRIPTION:

GATCTAAAGG CTCTGGNTTT GCCTTCTTTC AGTCTGACAC TGACTAACAA CCTCGACAAG 60  
GTGGGCATAT ACCTGGATTA TGAAGGAGGA CAGTTGTCCT TCTACAATGC TAAAACCATG 120  
ACTCACATTT ACACCTTCAG TAACACTTTC ATGGAGAAAC TTTATCCCTA CTTCTGCCCC 180  
TGCCTTAATG ATGGTGGAGA GAATAAGAA CCATTGCACA TCTTACATCC ACAGTAATGA 240  
GTCATAATAT TATACAAATT CAGAGTGTTA TTAAAGAGGT TTTGAAATAA A 291

SEQ ID NO:3674

LENGTH:290

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04329

## SEQUENCE DESCRIPTION:

GATCCCAAAA GCTGTTTTNA GGTATAAGGA CAAGGAGAGG AGACAAGTGA CGACAGCCAT 60  
 TCCCTTTTGC AGCTATCTAC TGTAGTGACA GCCATTTCTT GGTGATGGG TTGGAAGTCA 120  
 TCAGAGGTTT GAAGAATTAC ACTGGCCTTT GTTTTCNNG AAATGCCGAC CATGGAGATG 180  
 CTTTAGAGTC TTCTCAAATA GCTTAGATGT TGTAAATGNGG TTAAGCTTTG CTTCATAAAA 240  
 CAGGGGCCCT CAGAAGTTCT CCTTTAAATT TTTCANATAA AAAATTTAAA 290

SEQ ID NO:3675

LENGTH:288

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04330

## SEQUENCE DESCRIPTION:

GATCTATCCC TGCTCACTG AAAGCCCCTG TGTAGTGTCT GTGTTGTTTT CCCTTGACCC 60  
 TGGNNTTTC. TATCCTCCCA AAGACTCAGC TCCCCTGTTA GATNGCTCTG CCTGTCCTTC 120  
 CCCAGTCACC AGGGTGGGGG GGACAGGGNN AGCTGAGTGC ATTCATTTTG TGCTTTTCTT 180  
 GTGGGCTTTC TGCTTAGTCT GAAAGGTGTG TGGCATTTCAT GGCAATCCTG TAACTTCAAC 240  
 ATAGATTTTT TTTGTGTGTG TGGAAATAAA TCTGCAATTG GAAACAAA 288

SEQ ID NO:3676

LENGTH:285

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04331

## SEQUENCE DESCRIPTION:

GATCAACCCC TGACCTAATC GGTATGTGA TCTACAGATT ACAGACATTG TATAGAAATG 60  
 CACTGTGAAA ATCCCTATCC TGTTTGTTC TAATCTAACT ACCGGTGCAT GCAGCCCCCA 120  
 GTCATGTACC CCCTGCTTGC TCAATCAATC ATGACCCTCT CACACACATC CCCTTAGAGT 180  
 TGTGAACCTT TAAAGGGGAC AGGAATTGCT CACTTGGGGA GCTCAGCTCT TGAGACAGGA 240  
 GTCTTGCCAA TGCCCTGGC TGAATAAACC CCTTCCTTCT TTAAA 285

SEQ ID NO:3677

LENGTH:285

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04332

## SEQUENCE DESCRIPTION:

GATCACAAAA ATGGAACCCC CTGTTTCATG CTTCTACAGT CCAGCCAGCC AATCTGAAGA 60  
 TGTCACTCTT ATAAAAAGT ATGACCAAAT GGCTATCTNC CACTGTTTAT NTTGGCCTTC 120  
 ACTGACTCTG CTAGGTGGTG CCCTGATTGT TGGCATGGTG AGATTAACAC AACACCTGTC 180  
 CTTACTGTGT GAAAAATATA GCACTGTAGT CAGAGATGAG GTAGGTGGAA AAGTACCTCA 240  
 TATAGAGCAG CATCAGTTCA AACTGTGCAT TATGAGGAGG AGCAN 285

SEQ ID NO:3678

LENGTH:282

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04333

SEQUENCE DESCRIPTION:

GATCTCTGTG TTTGCAGTCA AAGGGCGGCT CACACATGGT CAAGTATTAT AAATNTCCTG 60  
TGTATCTNAC AATGGAATCT ATTCTACAAT TTAAAGTATA CGCTTTCTGT ATATGGCCAT 120  
TAAGTGAAGC TTAATAATCT TGTNTTNTCT GTCCTCATAG ATATTTTAAT CTGTGGCATC 180  
CTCCTGTAAT CTCAGCATTT TGGGAGGCTG AAGATGAGAG GGTGCTTGA GGCCAGGAGT 240  
TCAAGACAAA CCTAGGCAAC ATAGCAACCC TGTCTCTCCA AA 282

SEQ ID NO:3679

LENGTH:280

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04334

SEQUENCE DESCRIPTION:

GATCTGAGGT GATATGTTCT GAATGTAAGC ACCGTCAACA TCAGACACCT ACTCATGGAC 60  
ATGTGGTTGC CGGATTTTCT TAAGATGTTT CCAGAAATGA CTGATATTTT ATATTTATAC 120  
ATTTTAGATG ACAAAGCTTG ATATTTATTG CTGTCGCACA TTTTAAAGTT TTCTTTTGG 180  
GTTGCTCTGT GNCANGGCGT GGTTACATGG TGNTAAATCG GTACCTGATA ATGTACCCAA 240  
ATACTATGGC CAGATAATAA ATTGNGGTGC AAACAACAAA 280

SEQ ID NO:3680

LENGTH:278

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04335

SEQUENCE DESCRIPTION:

GATCACTGTG CAGTGGGACC ACCCTCACTG GCCTTCTGCA GCAGGGTTCT GGGATGTTTT 60  
CAGTGGTCAA AATACTCTGT TTAGAGCAAG GGCTCAGAAC NCNNAATAC TGTCATGGAG 120  
GTGCTGAACA CAGGGNNGGT CTGGTACATA TTGGAAATTA TGAGCAGAAC AAATACTCAA 180  
CTAAATGCAC AAAGTATAAA GTGTAGCCAT GTCTAGACAC CATGTTGTAT CAGAATAATT 240  
TTTGTGCCAA TAAATGACAT CAGAATTTTA AACATAAA 278

SEQ ID NO:3681

LENGTH:277

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04336

SEQUENCE DESCRIPTION:

GATCANAGAN TNACAACTGT TCATTATAGT GGTGCCTTAG GCAATCTTTN CAAAGTAAAT 60  
TCAGGGCCCC ATTGCTACTT ATGCCATATT TGGACATACT TTTTTTCT TCAATTTTGT 120  
AAACTTCCTG GAAAGCTGTC TTCCTAAGT ATCCCNAGT CTCTATCTAT GNGGNTAGTA 180  
GTCATGGAAA TAACACATAA AGTACGCCAG NAGTTNGNTG GAACGTGTTA GAAACTGTTT 240  
TGTGCTTTNA TGGATGTCAT ACTTGNCANT ACATGTN 277

SEQ ID NO:3682

LENGTH:275

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04337

SEQUENCE DESCRIPTION:

GATCTTTCTT TACTTGATGT GTCCTTCTNT TCGCAGATTG ATAACAGAGC TGTGCTAGAA 60  
 CTGAATGCAA GCTTTCCAAA ANTNTTCATA AAAAANAGCT TTAAGCAGTG ACTTAATATA 120  
 TGTNCTGTAT TAAAATTAAT GTGCTTTGTT GGGGTTTAAT TTTGGNATTG GTTTTGGGTT 180  
 TTNTTTTGTG TTGTTTAAAT GGTAAGAATT AAGACATTTT NTAAGATTTA AAGAAAAATA 240  
 TGAAATTNTC CATTAAATCA AGTAAAAATG TGAAG 275

SEQ ID NO:3683

LENGTH:269

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04339

SEQUENCE DESCRIPTION:

GATCTCCGCA GTCTTCAGCG CATTGGCCCG AAGAAGGCC AGCTAATCGT GGGCTGGCGG 60  
 GAGCTCCACG GCCCCTTCAG CCAGGTGGAG GACCTGGAAC GCGTGGAGGG CATAACGGGN 120  
 ANACAGATGG AGTCCTTCCT GAAGGCAAAC ATCCTGGGTC TCGCCGNCGG CCAGCGCTGT 180  
 GCGGNTCCT GACCGTCGTC TCCTCACTCC GNCTTTTCAA ATTTTGTAT AACCCCGTGT 240  
 TGTGTAAATA CAGTTTTTGC TCCGGTAAA 269

SEQ ID NO:3684

LENGTH:266

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04340

SEQUENCE DESCRIPTION:

GATCAGGCCA GTAGGTTGTG AATGCAGGCT GGAGCCCCCG AATGCCCCAN NCACACTGCA 60  
 GCATTGACCA GACCATCCGA AACCTGCGTC CCTGGTGATG TTCTCAAGCC TCGGAAGTGG 120  
 CAAATGGAAA TAATATGGCC GGTTCGGTT GTAGGAGAGT TGTGACTTAG GCAGGAGTCG 180  
 ACCTCCTCAA GTAATGGAAC GATTTCAAAG GCAGGCTGCC CTGACCAAAA ATATCTGCCA 240  
 TGAATAAAGG TGCCTGAAAT CCTAAA 266

SEQ ID NO:3685

LENGTH:266

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04341

SEQUENCE DESCRIPTION:

GATCTACTTT CAGGATTATT TTTGTNTTT GAACGTGACA GTNTGGATGA GGCAAGTNAG 60  
 TTAGATGCT GCGACCCTGC GAGAAGCAAT AGCTAGTGAA CACATTAGCT CCCTACATGG 120



GACGCAGCTC CCTCTGACAT GTGTCTCTGC CCTTAACCAA GACAGAAAGG GGGTAAATGG 180  
 AGGATTGGNT TACTGTCTTT GCTGGTAGT TTTGTGAAAT TTTAAAAATG TTCAACTTTT 240  
 GANTAACTC CTTTAACTT CTAAA 266

SEQ ID NO:3686

LENGTH:270

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04342

SEQUENCE DESCRIPTION:

GATCTCCTTC AGTNGTCTAC CCACTTCCGT CATTGTCCTC CGCTAGAATA ACAGAGTAGT 60  
 TGGTAGTCAT GGCCAGAAGG GGGGTGGGGG CAGTGTGAGG ACTGGGGTT TCTGTGCTGT 120  
 GTGACACAAG GAGATAAGTG ACAATNTTGA AGTCCTAACT TGCATTATC TAGAAAGTAT 180  
 AGTGGTGATT TTTGTGCAA GATTGAAGT TTTAAAAAG TACCAAGTTC CTGAAATTCA 240  
 ATAAATATT TTTATTAATT TTAATGGAAG 270

SEQ ID NO:3687

LENGTH:264

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04343

SEQUENCE DESCRIPTION:

GATCTCAGCT CACTGCAACC TTCACCTCCC GGGAGCATGC TGCTCTATCT TTTTTNCAG 60  
 ATGTTTGAGC TATTCCAGGT TTTTGGGAT TTCTGTTGNT TTGTTTGTG TTTTGCTTTT 120  
 CTACATAAT GTTTGGATAA TCTTGTCAGT ATCTACGAAG TGCCTTGATA GTAAATATAT 180  
 NAACCTGTG TATCAATNTG GGGTAATTNC ACATNTTTT CTATGTTGAG TTATCAATAA 240  
 ATTGATATTG TATATGNCTC TAAA 264

SEQ ID NO:3688

LENGTH:262

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04344

SEQUENCE DESCRIPTION:

GATCCTCAGT GCAAAATGTC TTGTGTANTT NTNTGTGAAT CCATGGGTCT GGCTAGAGGG 60  
 CCCAAAGCTT GTAAATATGG GGATAGTCTG GGTGAGACCC ATCTNTCCCT TACCCATCTT 120  
 GCTTCCAAGA CCAATTTGTAG TGAGCGAGTG GATGCTGTGC TACGTGTGAA ATCTGTCTTT 180  
 GCGGGGCCTG TCTCAGTGAT TCGNTTTTGG TATTNGTTG TAGCTTTCCT GGAAGTCAAA 240  
 TAAATGTTTC CCCCCTCCA AA 262

SEQ ID NO:3689

LENGTH:256

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04345

## SEQUENCE DESCRIPTION:

GATCTCAAAT GTGAACAGTT TACTAATGCA CTAAGAAGT TTAAATCTGT GGCACAATCA 60  
ATGTAAGCAT GGGGTTTGT TCTGTAAATT GATTTCTAAT NTGAAATTAC TGAACAACCT 120  
CTATTCCCAT TTNGCTAAN CTCAATTCT GGTTTTGTA TATATCCATT CCAGCTTAAT 180  
GCCTCTAATT TTAATGCCAA CAAAATTGGT TGTAATCANA TNTTAAATA ATAATAATTN 240  
GGCCCCCCT TTAAA 256

SEQ ID NO:3690

LENGTH:251

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04346

## SEQUENCE DESCRIPTION:

GATCTAAAAA GCTGAATAGC ATGTNAGTTA CTTGGTTTCA ACTTGAGTTT NCTTTTAATG 60  
TTAATAAGAT TGAACTTTA GTATTAGTG GGAATGGAA AGAGTTGCCC TTGTGCAAG 120  
TAATGAAGCC TGATTGATT ATGAAGCTGC TTAATCACTC TTCATGTGT CAGAATTACT 180  
GTTTTNTTG TTTGTTTNC CTTTNGTCA CTGTGGTACA TTAAAAATT NGGGAAGATG 240  
CTTTACCTAA A 251

SEQ ID NO:3691

LENGTH:250

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04347

## SEQUENCE DESCRIPTION:

GATCCCAGAC CTGNGTCTC TCCACCCCC TCCCAAAGC CACTGGAAGG AGCACATACT 60  
ACCTAGAAGT AAGANGNGA GCCTCAGAAG AAAACAAAGT TCTATTTTAT TAATTCCTA 120  
TGTGTGTGT TTGTAGTCTT GTCTTAGCTC TGGACGTGAA ATACTTCGAT GATGATGATG 180  
ATGATGATGA TGATAATAAT AATAATAATA ACAACAACAA CAACAATAAT AAAGATGTGA 240  
AAACTCGAAA 250

SEQ ID NO:3692

LENGTH:248

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04348

## SEQUENCE DESCRIPTION:

GATCTCAGAT AACTCAGTAC AGATAGCAAT TAGTCAGCTG ATTTGATTAC AATGGAGTAA 60  
CCGACAATAT ATTTATTTAT AAAGCACATA TTCATAATAA CGAGAAGAAT TCAGAAAACC 120  
ACTTAAGCAA GACCCCTCTG AAATAAAANN TGTNGCTTTT TAAATAGTTT GTCCTAAGGT 180  
GTTTAAANCA TGTCACCTT ATGTAAGGNN AANTTTCTCG GTCCAANTAA NGTTGANGTT 240  
TAAGGAAA 248

SEQ ID NO:3693

LENGTH:248

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04349

SEQUENCE DESCRIPTION:

GATCCTGGTT GGAAGGATGG GGACTCTCTC AAGGGGCTTT GGAAGAGCTC TTCTAGCCCT 60  
TTATAAAAGG AGGGCAGCAG CTGAGACTGA TGAGAGGAGG GCAGCCTGCT CTGTTCTTTC 120  
AGGGCCCCC ACCCCATCT CCCCTACCCT AGCCACCCT AGGGCCTCTA CCCAGCGGGA 180  
GGGGTTGAAG ACCAGGCCTG GTTTTATTAG AATTCATTTT GTAATAAAAG CCTTTTTTAG 240  
TGGTGAAG 248

SEQ ID NO:3694

LENGTH:248

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04351

SEQUENCE DESCRIPTION:

GATCCTATTT TNATGAAATG TCCAGAACAG GCAAATCCAC AGAGACAGAA ACTAGACGAA 60  
TGGTTGCCTG AGGGTGAGGG GAAACAGGGA GTGACTGATG ATGGGTTTTG TGTGGGGGCA 120  
ATAGAATGTN CTAAAATTTG ATAGTAATGG TTATACAACCT CTGAATATAC TAAAAGCCAT 180  
TGTACACACG TAAAAAGGG TGGATTGTAT GTGAATTCTA TCTCAATAAA GCTGTTCAA 240  
AATTCAAA 248

SEQ ID NO:3695

LENGTH:245

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04352

SEQUENCE DESCRIPTION:

GATCCACTCC GCCATCGATG CATCCAGAC CCCCAGTGTC GTGTCGCAA GCATCCTAGC 60  
AGCCTTCTCC AAAGCCACAT GTAAAGACTT GGTATGTTT ATCTAATGTT GGGTCCAAGA 120  
AGGAATTTCT TTCCATCCCT GTNAGGCAAT GGGTGGGAAT NATAGGACAG GCAAAGAGAA 180  
GCTTCCTCAG GCTAGCAAAA ATATCATTTN ATGTATTGAT TAAAAAGCA CTTGCTTGAT 240  
GTAAA 245

SEQ ID NO:3696

LENGTH:243

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04353

SEQUENCE DESCRIPTION:

GATCTCAAAA CCACTATTTT TATTATTTCA TTATTTTCA GAGGCCTTAA AATTCTGGAT 60  
AAGAGAATGG AGGAAAATAC TCANCGGTAC TTCATTATTT NATTCCTTT TATTAATAAAA 120  
TACTTCTAT GTTTTATTG TCTCTTGAGC CTTAGTTAAG AGTAGTGTAG AAATGCATGA 180  
NCTTCATCCT AATAAGGATA AANCTTAAGG AAAACCACAA TAAACCATGA AGGTGTACAC 240  
AAA 243

SEQ ID NO:3697

LENGTH:241

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04354

SEQUENCE DESCRIPTION:

GATCTNTCCA CGGTAGCACT TGNCTTTTC GACGCTTAAC CTTCCGCTG TCGCCCCAGG 60  
 CCCTCCCTGA CTCCTGTGG GGGTGGCCAT CCCTGGGCCC CTCCACGCCT CCTGGCCAGA 120  
 CGCTGCCGCT GCCGNTGCAC CACGGCGTTT TTTTACAACA TTCAACTTTA GTATTTTAC 180  
 TATTATAATA TAATATGGAA CCTTCCCTCC AAATTNTTCA NGTAAAAGGT GGCTTTTCAA 240  
 A 241

SEQ ID NO:3698

LENGTH:239

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04355

SEQUENCE DESCRIPTION:

GATCAGCACT GCACTNTTAG CTGAGAGTGC GGGCAAGACA TAACTGTCC AGAGTTTAA 60  
 GNTTCTNGGA AAGACCGGAG GGCTTCTCCC CACAGAAGGC GGAGAGAGCT GGNCTCAGA 120  
 CATGGNTGTG CACCTTAATA AACCTGTCTG TCTGCCTCCC TGA CTGTCTGCT TCTNNGGAGC 180  
 ATGGTGAGCA GCCCTNGTGC TCANCAGCCA TACCTATGGG ACACACACTA CGNAAAGGN 239

SEQ ID NO:3699

LENGTH:236

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04356

SEQUENCE DESCRIPTION:

GATCACAGGT GATTACACG TACACACATA AACACACCCA CCAGTGCAGC CTGAAGTAAC 60  
 TCCCACAGAA ACCATCATCG TCTTTGTACA TCGTATGTAC AATGCAATCA TTTCATACTT 120  
 TAACTGGTC AAAAACTAA TTGTGATTTT TAGTCTTGCA AAGCTGTATG TAGTTAGATG 180  
 ATGTGACAAC CNCTAATATT TATCTAATAA ATATGTATTG AGATGAAACC TGTA 236

SEQ ID NO:3700

LENGTH:235

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04357

SEQUENCE DESCRIPTION:

GATCCATCCT TTATCAGGAA GTCTGAAGCG ACTATAAAGG TTTTNTANTT CAGATTTAAA 60  
 AACCAACTTA TAAAGCATTG CAACAAGGTT ACCTCTATTT TCCCACAAGC GTCTCGGGAT 120  
 TGTNTTTGAC TTGTGTCTGT CCAAGANCTT TTCCCCCAA GATGTGTATA GTTATTGGTT 180  
 AAAATGACTG TTTTCTCTCT CTATGGAAAT AAAAAGGAAG AAAAAAAGG GNAAA 235

SEQ ID NO:3701

LENGTH:232

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04358

SEQUENCE DESCRIPTION:

GATCCGTGTT CTCCATTTAT TAATGCATTG TAGACCAATT TAACTGCTGT GTTTCAGGAA 60  
AATTCTTCCT AGTTTAATAA GCAAGCTAAA AGTTTATTT TTTATATTTA GTGCTTAATC 120  
TTTGCCTCAT GTTATGTAAA ATTAGCCTGC AGATATTTTC TCTCAATTCT GTAGACTCTC 180  
GCAAGATAAA CATTCAAACA GTGAAACAAA CANTAAAATA AATAAACCTA AA 232

SEQ ID NO:3702

LENGTH:231

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04359

SEQUENCE DESCRIPTION:

GATCCATCTG AACTATGAAG TGAGTACCTG GAGGAACTCC TACATTTAAG GCTTTCAAAG 60  
GTTACAGGCT TTTCTGTGT GTGTGTGTGT GTGTGTGTGT GTGCGTTTGG AGAAAAATGG 120  
AATTCAAACA CTGNNNTAG AATGTATGTT TACTTATATA GAATTAATGA ATNTATATAA 180  
TAATAATNAC TGTATATAAT TNTAAAATAT AATAAAGTCT CTTTATCCAA A 231

SEQ ID NO:3703

LENGTH:237

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04360

SEQUENCE DESCRIPTION:

GATCTGGAGT TGAGAGCCAT GGGTTTGGAC ATGACTGGCA CAAACAGCTG TCATATGTTT 60  
ATGGTCAGAT GTCATACATT CTCAGCTGTC TTGTTCCACC AGTATTACC AGGAAAACAA 120  
AGAATGTGTT AAGGGATGCT CCCCCACCCC ACATCTTAAG TCAGTGTGCC AAGTACTGAG 180  
ATGATTTTAG GGACATTTTA TTTTAAATTA AATTACAAT CTAATGGTAA ATTGAAA 237

SEQ ID NO:3704

LENGTH:231

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04361

SEQUENCE DESCRIPTION:

GATCATCAAC AAGATTTCTT TGTGCAAAAT ATTTGACTAT NCTGTATCTT TNATCCTTGA 60  
CTAAATTCGT GATTTTAAAG CAGCATCTTC TGGTTTAAAC TTGTTTGCTG TGAACAATTG 120  
TCGAAAAGAG TCTTCCAATT AATGCNNNTT TTATATCTAG GCTACCTGTT GGTTAGATTC 180  
AAGGCCCGA GCTGTTACCA TTCACAATAA AAGCTTAAAC ACATTGTCAA A 231

SEQ ID NO:3705

LENGTH:229

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04362

SEQUENCE DESCRIPTION:

GATCAAAATT GAACCATTGT ACAGTTTGGN TTCTGTTTGC TTCAAAATAT GTAGAATTGT 60  
GGTTGATGAT TAATTTGCGA GACTAACTTT GAGAGTGTA CANTTTTGAN GAAAACATTG 120  
AATGTTTTGC AAATGAAGGG GCTTCACGGA ATGTTACANT GNTACTAATA TAATTGGGCT 180  
TTNNTNATGC AAATNGTTAA CACCAGCTAT TAAAATATAT TTNGTAAA 229

SEQ ID NO:3706

LENGTH:228

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04363

SEQUENCE DESCRIPTION:

GATCGCTACC CACCTTCCTT CCATGGTTCC CACCCTCCAC GTTATTTTCC CTTTCTGCAG 60  
CGGTTGCACT ACAGGTAGCT ACTGTGTATT ATGGACAAAT GAGAAATGAA TTCTTTTCT 120  
GGCTGTCCAT CTATTTTATT TCAAATAAGG AAAAGTGTAT TTGGATTTTG TGTAATACA 180  
TCTAGTGATG NCATTTTTC AATGTTTNA AAAACCGTGT ACAGTAAA 228

SEQ ID NO:3707

LENGTH:228

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04364

SEQUENCE DESCRIPTION:

GATCCTCATC CAATTGGTGT TTTTCAGAAG TTTTCCAATA TTATGAATTC TGTGTTGTGG 60  
AGAAAAGCAA CCATGCATTT ACTGGTCAAT GCCTTCTGT ATATGTAATT CAATACTTTT 120  
ACTTTTAATA TCCTCACCTT ATCTAATCTT TGATTTTGT CATGTAATTT ATTGCTTCAT 180  
TAAGGTTACT TTTTGTATA CAAAATAAAA GCTGATATCC AAGGCAAA 228

SEQ ID NO:3708

LENGTH:226

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04365

SEQUENCE DESCRIPTION:

GATCTATGAA AATNTGTTTT GACCAAACTT AGTATTAGGC AGGTACACAG ATAAGATTTT 60  
CCATTCTNAA CATTCTCACT GTAATGCACG ACATTTGANG CACCTGNATG TGCTATCAAT 120  
CAGGTGGGAA ATTTAGCATT ATATATTGGA AGCATTGAGA AACATTGGTC TNTCATTCT 180  
ATTNNNTTTT NCCCCTCCTN TCCTCCTCCT GCCCCACANT ATATNN 226

SEQ ID NO:3709

LENGTH:224

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04366

SEQUENCE DESCRIPTION:

GATCCTGAGA GCTTTGAGAG GGTGTTGCCA GTTTTAAGCT GAGATGGCCC ATTTGGAGCC 60  
TTACAGAACT AGACCAGAAG ACATTTGTGG ATAAATCTGA ACTCACTTCC TGTGTGTAAC 120  
TTCTAACTTC ACTGGTTCCT CCCATCTGAA TTGGCCACAT GCTTGCTGAA GAGACTTGT 180  
TTCTTCTTCT AAGACAGTGG TTTGTTTTT TGGGTTTTT TAAA 224

SEQ ID NO:3710

LENGTH:223

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04368

SEQUENCE DESCRIPTION:

GATCTGGGCA GAATCCGCCA AGCGGCTGGG CCCAGGCTGT GGCATGATGN ACGGAGNAAN 60  
GAAGCACCTG GACTTCTAGG GATTCTCCT TAGTCGCTGC ATGCAGAATT CTATGACACT 120  
CTAATNATGA TTGCTAATAG CTTATGTAAA TATTTNNTT AACAATTGG NCCTNCACTC 180  
CTTNAAAAAC ACAAGGATTA TAAAATGGGT GCCNGCATTT NTN 223

SEQ ID NO:3711

LENGTH:221

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04369

SEQUENCE DESCRIPTION:

GATCGTATTC NTNATAAACT ATTACCAGTA CAGTAGCTAG TAGATATNNT GTGACTGCCT 60  
CATTGTTTAT CTGCTGCTT TGGTCCCTAT GGCTCTAGTA TGAACATTCT CGTGTCTTCT 120  
GTGGAAATGA TTTCTGTGTT ATAGTNCAN CTTNGGTAGA GGTGGGGATG ATTGTATTTT 180  
GTTTtagtTG ACATCATTCT CAACTNTTAG AAATACTGTT N 221

SEQ ID NO:3712

LENGTH:219

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04370

SEQUENCE DESCRIPTION:

GATCAGTTTG CGAGTTTGA TGAGNTTGT AAGGTTTNTN TTTTACAAAC TATGAATCAG 60  
CAAATNTTTA AGATTGTACC ACATAGCAAA CATACAGCTG TTGAAAAATA ATGTATATAA 120  
AATGCATATA ATAAATATTA AATNGTGTA CTGTATGTA CTGTTGGCTA CATCATTTTG 180  
TGTTGAATAA TAAAGTGCAA TACNNCCTT CTCCATAAA 219

SEQ ID NO:3713

LENGTH:214

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04371

SEQUENCE DESCRIPTION:

GATCATTCTG TATATACATA TTTTAAATTA TGCAAGCAAA CTAGGAGGAG AATGTNCAAT 60  
 TTTAAGGGAT ACCTAATTTT CNTTCGGTTA GGGGATATTT TCCANCCTCT TGCTTTATAC 120  
 TCTGATATGG GGTGTNTTTA TGANCTTTTT AATGTTATTT ANTCATGCAG ATTTCCAATC 180  
 ANTGTATTGC NCATTTCTCG ACAAANGGG NAAN 214

SEQ ID NO:3714

LENGTH:215

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04372

SEQUENCE DESCRIPTION:

GATCCAAAAN ATAAACTTGG AAGCTATTCT GGAACATAACA TGGAAAAATG AAATGGCTAT 60  
 TGTTTAAAAA AATGATAGAA ATACATTGTT GATGGGATAT GAGTTAAGTT TATTTTCTAC 120  
 AAACCTGTAA TTGATGACGG CATGGATAAT ATCTTCATGT TTCTGACNAG TAATCTGTAT 180  
 GTGGGGGGAG GGGATAATAA ATATTCTAA CCAA 215

SEQ ID NO:3715

LENGTH:335

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04373

SEQUENCE DESCRIPTION:

GATCAAAAGT GAACACCCTG GCCTATCCAT TGGGGATACT GCAAAGAAAT TGGGTGAAAT 60  
 GTGGTCTGAG CAGTCAGCCA AAGATAAACA ACCATATGAA CAGAAAGCAG CTAAGCTAAA 120  
 GGAGAAATAT GAAAAGGATA TTGCTGCATA TCGTGCCAAG GGCAAAANTG AAGCAGGAAA 180  
 GAAGGGCCCT GGCAGGCCAA CAGGCTCAAN GNAGAAGNAC GANCCAGNNG ATGAGGAGGA 240  
 GGAGGAGGAA GANGNAGATG AAGATGAGGA GGAAGAGGNT GAAGATGAAG AATAATTGGC 300  
 TATCCTTTAA ATGATGCGTG TGGAAATGTGT GTACN 335

SEQ ID NO:3716

LENGTH:211

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04374

SEQUENCE DESCRIPTION:

GATCAAAATGT GCTGCAGCTT TTGCAGAAAA CAACTCAGAA ACACAAAACC CCCCACAGC 60  
 TCAATTATTA TTTTTCATAT GTTTTCCTAC AAGAGCCAAG TAGCACCATG TACAGAAGAC 120  
 GCCTTTTTTT TTGGAATATT GAAATCGTTC TGCATGTAAA ATATGGGATA ATGACCTGTT 180  
 TATATTAAAA TTCTGATTAA ATTATCTGAA A 211

SEQ ID NO:3717



LENGTH:390

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04375

SEQUENCE DESCRIPTION:

```
GATCAAGAAT TCTACCATCC CTGGGCTCTT TGTGTATAAA CAATGTATAA TACCAGGTAG 60
ACTCAGTCTT TAAGATATTA GACAGTTTTT TTAGTCCATG GGNTNNNNAA TATAAACATT 120
AACTTTCCTA TAAGANTATT TTGGCTTTGT AATCTATAGC CTCAAATTGG TATTTATTAT 180
GGNTTCACTA GACAAACAGC TGTTTCCTTA TTGNTTTTN NCTTTAGTGT TTCTGATTG 240
CTATCAGTAG CTGTTTTTAA AGCCGNCCAA GGNAATANT TATTGTCAGT TTTTGAAGT 300
CACTTTTGA GCCCTCATNC AAGCTCTCAT TGTGGNTGGG GAGGGATACC NTTTTGGTT 360
GTTAAAAGGC CTATNATTGG TTAAAGGGCN 390
```

SEQ ID NO:3718

LENGTH:235

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04377

SEQUENCE DESCRIPTION:

```
GATCTTAGAG CTGAGGAATT GGCCTCCCAA TCCGAACAGG TGTATAATC CTTTCTNAAT 60
AGGTTGTGCT GTGGACCCAA TGTNAGGGCT GTNCTGGTGT AAATGGTGAC ATATTGAGCT 120
GGGGGGATGC TTTGGGGGTG GGGGGACTGG TTCCATTCCA TCAAAAGGCC CTCTTGAGAG 180
TCTATCCNGG GNCCCATTTG TTNAATTTAA CAGGCCAGNA AAGANGGTTG NTNNN 235
```

SEQ ID NO:3719

LENGTH:209

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04378

SEQUENCE DESCRIPTION:

```
GATCTCCTGA GCTCAGGCAA TCCGCCCACC TCGGCCTGTC AAAGTGCTAN GATTACAGGT 60
GTGAGCCACC ATGGGTGGCA TCTTTAATAT AGATTTATAA GGCCCNNTG TTATATATTT 120
NNAAAAATTC AAATTAAAAC TANATCCCA AATGTCCNT TTATTAATGA AGTATTTGT 180
CANATGGATG TTTTAAAGCT GTGTATGTN 209
```

SEQ ID NO:3720

LENGTH:209

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04379

SEQUENCE DESCRIPTION:

```
GATCTAGGAT TACTCTGGAC CTCATTGGG TGTATGAGT ATCCCACGAA GGCCAGACGC 60
TGATTTNATT TNCTCATTC CACAGATTGA CAAGGATAAG TCAGNNGTTT GTAAACTCTA 120
GGTAGCAGAT GAGAAATAAT TCACTTAATA TCAGAAATAT TTNCCAAACA CTTTCCTTNA 180
TTTTTCCTTC TGANTAAATA GANANCCNN 209
```

SEQ ID NO:3721

LENGTH:208

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04380

SEQUENCE DESCRIPTION:

GATCCAAGGA ACGTTTGGGG TTTCCTAGGT GGGCCACATC CAATCAGTGG AAGGTCTTAA 60  
GAGCAAAANC TGAGGTTTCCT CAGAGAAGAA GGAAATGTTT TAAGACTTCA GCATCAATTC 120  
CTGCCTGAGT TTCTAGCCTG CTGGCCTGCT CTACAAATTT CAAGCTTGCT AGCCCTCACA 180  
NTCACATGAA TAAATTCCTT AAAATAAA 208

SEQ ID NO:3722

LENGTH:208

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04381

SEQUENCE DESCRIPTION:

GATCCTTTCC CCATGGACAG TGACAGAGCA ACTGGGCCGC AATGGCATAG GCAGAAGAAA 60  
ATNTAATCAC TCTGGGGGTG ANTGGTGGTT AAAACGACTC ATGTAATTAT TTGGATTGTA 120  
ATTCNTTAC ACATATTNTT TTGCTTAACC CAGCATGTNA GATATATNAT NTAATCTAAT 180  
AAAAGATACA AACTTATGGG CACACAAA 208

SEQ ID NO:3723

LENGTH:207

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04382

SEQUENCE DESCRIPTION:

GATCACCTG GAGCTGTGGC TTCCCCGAGC AGCTGAGAGT GAAAGGAGGC AGTTCCTTTA 60  
CTGTGAGCTC TCACGGCAGC GTGCTCACGC CCCACACAGG GGCTGCCTTC ACTCGGCTTC 120  
AGCAGCNGTT GACTTTTAAA TCATAAAAAG CCGCTCTATA TACAGTTTAC TCTGTTGCTA 180  
GAAGGCAGTG GAACATAGGT ATTTAAA 207

SEQ ID NO:3724

LENGTH:207

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04383

SEQUENCE DESCRIPTION:

GATCCACGTA CAGTTTGGAT TTTCCTTCTA GCCTTCATGT GTGGCCCAAG CATCTATTTC 60  
AGACTGTCAT GGTGGGCATT GTTCTCTGAG GTTCTGTCTT CCCTTCGTGT TTCTATGAGC 120  
TTTAATTTGT ATGGTTCTTG TTCTGTAAAT GCCACTAGGG ACTATGTATT CCTGATTCCA 180  
CCATGACAGC TACAGTAAAA CAGTAAA 207

SEQ ID NO:3725

LENGTH:204

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04384

SEQUENCE DESCRIPTION:

GATCAAGCAG GCACTTCAAG CCTCAATAGG ACCAAGGTGC TGGGGTGTTT CCCTCCCAAC 60  
CTAGTGTTCAG AGCATGGCTT CCTGGCGGCC AGGNCCTGCC TCCNTGGACT ANCTGGGGGG 120  
TTCCGGGTCT CAAGAAGACA AGGGTGCTGG NCCTCCCTAA GCCAAGGAGA GGANTAAAGA 180  
CAAAAAGCTN AAAAAAAG GAAA 204

SEQ ID NO:3726

LENGTH:202

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04385

SEQUENCE DESCRIPTION:

GATCTCGAAC TGTACCAAAA TACATGGAGA CTAACAAACA GAACCACATG GAACTTTCAA 60  
ACTGAAAAAA AAATTTGTCA CAAAACTTT GTTGTATAG TTAAGTTGAT TGTAGATGGT 120  
AATTGAATAT ACTCCTTTGA AAATATTTCA TCAAGTATGT TTCCTGCTCA TTGTGATACA 180  
TTAAAAAAA ANTATGGGCA AA 202

SEQ ID NO:3727

LENGTH:219

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04386

SEQUENCE DESCRIPTION:

GATCCAGAAG GCTTACGAGT ATTTTATTAT CTTGTCCAGG ACCTGAAGTG TTTGGTCTTC 60  
AGTCTTATTG GATTACACTT CAAGATTAAA CCAATCTAGA CTGAATATTG GTGTGGACAT 120  
GGGGGGTGGG TGGGAGTAGA AAATTTTGTG TATATCAGGG CAGTATTTT TTATGAACTA 180  
TAAATGATTG TCTTTAATAA ATATGTGATA AAATCCAAA 219

SEQ ID NO:3728

LENGTH:200

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04387

SEQUENCE DESCRIPTION:

GATCATATTT AGAGGATATA ACAATTAGAA ATCTAGAAAA TAATTATCAC TTTNATAAAA 60  
TNTNAGTCA ACTGTACAAA TAATTACATA AAACATCAAT TAATNATGCT TAAAAATCAC 120  
TAATNTTCAT AATATATAAT CACTATTTGT AATCAAAAGT TTAATTTTAT NTAAAAAAT 180  
AAAAAATGCT TACTTGGA 200

SEQ ID NO:3729

LENGTH:198

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04388

SEQUENCE DESCRIPTION:

GATCAGCCGA ACTCTAGGGA CTTGGTGTG CTTGGAAGGC ATCCATACCT GCATTTTGCA 60  
TTCTTCGTAT GTAATCATAT TGCCAAAGAC AAACATTTTC ATCATTATT GTAAATAACA 120  
CTTTCCCCA GACCTACCAT AAAGTTTCTG TGATGTATTG TCTTCCAGTT GCAATAAAAA 180  
TTACTGAGTT GCATCAAA 198

SEQ ID NO:3730

LENGTH:197

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04389

SEQUENCE DESCRIPTION:

GATCTAAGAT TAATTCCTCA ACTGTTTGC ACTCAACAAA GACATACCTC TGAGTTGGCA 60  
ACCAGCAGGG TGGATAACGG GCCAGTGGTG ATAAAATCAA AGAATAGGTA ATGAAACAAT 120  
CATCCAGTTA ACAATCAGCA AGGTTCTTCA GAGCCTAATT AATGTTTAAT TCTAAATAAA 180  
TTGCAACAAT TAAGAAA 197

SEQ ID NO:3731

LENGTH:197

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04390

SEQUENCE DESCRIPTION:

GATCCAAAAG TTAAATTAG TGCATACATC ATGTCATTTT ACCTCCTGTT CCTAGGAACT 60  
CTCCATTCCC AAGCATTGCC AGTGTTTCC AGATAATCTT AGCTGTTGTC TTGTGCTGTG 120  
GAAATGGAAG AAACCATCTT CACAGACTGT AGGAGAATTC AACATATAAT TTCTTAATAA 180  
ATACTGTTTC TTTTAAA 197

SEQ ID NO:3732

LENGTH:195

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04391

SEQUENCE DESCRIPTION:

GATCTAAGGG AGTCCACTAT CTGTGCAATT GTATTTGGNT TTTTTTGCA CTGTTTCAAT 60  
GCTGGTAATT GAAACCAITT TAATATATTT GGTGTATTC ACTTTATATG TCCTTCCAAA 120  
AATNTTGTG TGTACAAACC ATGNNNNNGA ATGTTGGCTT CCAAGTTTTT AAATAAGAAA 180  
CTTTTGTAT TTAAT 195

SEQ ID NO:3733

LENGTH:195

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04392

SEQUENCE DESCRIPTION:

GATCCACGGA GCAGAGGTCA TCTGTCCCA GCTTGGCCCA CTGAGGCCAG CATGGNTGGG 60  
CCCAGGATGC TTGTCTCTCA GCTCCCATCC TGTGTAATTC CACATTGGTT TAACCAGAGG 120  
AAAACCGAAA TCTACAATTG TNATAAACAC ATTTAAATGT GCGTAGAATC AGCCATACAA 180  
ATTGTGAAAC ATAAA 195

SEQ ID NO:3734

LENGTH:195

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04393

SEQUENCE DESCRIPTION:

GATCAACTCC CCCAAGGCC GAAAGGTGCT GCATACCACG TACCANAGCC AGGAGCGTGG 60  
CACACACAGC CTGGACATCA AGTGGTGAAG TNAGGCCAGG GNCTTCCAGC TGCTCTTGGG 120  
GCCAGAGCCA AGAGCCTCTN AGTAGAGGGA GGGGCTGCC TGAGTGGAGT ATTAAAGACA 180  
CTTAAGAAAA CCAAA 195

SEQ ID NO:3735

LENGTH:193

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04394

SEQUENCE DESCRIPTION:

GATCCTGTGC CCTAGGAGCA CCTAGGAAGA CTTGCTCCAT CTCCGCCCGC ATATCTGGGG 60  
CACCAAGAGA GACAGAGTCG TGAGCCAGGC TCGCCTCATT CCTCGTCTTG GGAGAACCGG 120  
ACCAACTTCC CCAAAAGGCC TTGCCGTGCA GAATTGGCCT GGTTTAATAA AGAACAGACC 180  
TGNCCCAAGN AAA 193

SEQ ID NO:3736

LENGTH:190

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04395

SEQUENCE DESCRIPTION:

GATCTGCCCC TCCCAGAAC AATCTGGATT TCACGGAGAC AGCAACCAGA AGTTAAACCA 60  
TGTGACTAAA AATGCATCTG GCTACTTTTT CATGTATGTA TGAGACAGAA ACTAATCCTT 120  
ACTATCCTAT TAGGATACCA CTTTTCATTG CAAAGTTTGT GTCAATAAAG TCATTAATTT 180  
TAAACATAAA 190

SEQ ID NO:3737

LENGTH:190

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04396

SEQUENCE DESCRIPTION:

GATCATAAGT AGTGGAGGAT TTAAACCAG GCTGGCTGGC TCTTAAGGCC TATGCTCTTA 60  
ATTNACCATG TNGAATTAAT TTACCATATT GAATTACACT TATGTNCACC AAGTNAGGCA 120  
TTTNGGCAGC CATTGTTTAC GTTTTANTTT TGGAATAATT TAGAAAAGTT ACCAGAGTAA 180  
TATGAAAGCN 190

SEQ ID NO:3738

LENGTH:187

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04397

SEQUENCE DESCRIPTION:

GATCCTCCGC ATCCCCTGCG AGGAAGAAGA TGTGGAGATG AGTGAGGACG CCTACACGGT 60  
GCTGACCCGC ATCGGGCTGG AGACGTCAC GCGCTACGCA NNNNNGCTCA TCACAGCTGC 120  
CAGCTTGGTG TGCCGGAAAC GCAAGGGTAC AGAAGTGCAG GTGGATGACA TCAAGCGGGT 180  
CTNNNNN 187

SEQ ID NO:3739

LENGTH:187

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04398

SEQUENCE DESCRIPTION:

GATCTGCCCC TAAACTTGAA ATACCTCCTG CTCCTTTGGG GACTGGNCTT TGCNAAGAGC 60  
ACCTGGGGAG GAGACTGGTG CTAAC TAAGC CAGTAAGTAA GTCCACTCTT TGGNTGCAGC 120  
TGGTGAAGG TCTACCCATA CCTTTTATT TNCAGTGTTT AATAAAANTC CAGTGNGCAA 180  
AGACAAA 187

SEQ ID NO:3740

LENGTH:186

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04399

SEQUENCE DESCRIPTION:

GATCAAGTTC TCGNCTGAN GAGGCTGCCA AAAGTCAAAA GNGGGGCCTG GGAAGGCAAG 60  
CTCATTCCTC ACAACGGCCT TTCCAGGCC NGTTTTTCCC TTCCGGCAGC CTCTTGGCCT 120  
CTAATTTGTT TATCTNTNGT GTATAATCC CAAAATATGG AATTTTGGAA TATTTCCACC 180  
ATTAAA 186

SEQ ID NO:3741

LENGTH:185

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04400

SEQUENCE DESCRIPTION:

GATCTGCCTT CCTGCTGAAA CTTGTTCCAC CTCAGTCCCC TCATCTGTCA CACGCATGTG 60  
GGGTGGAGTA GGGAGATGCG GGGAGCAGGG TGGGCAGGAA TACTGTTATC TATGTNACGG 120  
GGCAGTCGTG AGGCTGAGAT GAGAATGCGG ATTAAAATGC CTGGCGTGCT CACCGTAACA 180  
CCAAA 185

SEQ ID NO:3742

LENGTH:182

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04401

SEQUENCE DESCRIPTION:

GATCCCATCT NTACAANAAA CTTAAAAATT AGCCAGGCAT GATGGCACAT TCCTGTAGTC 60  
CTAGTACTC AGGAGGCTAA GGTAGGAGGA TTGCCTGAGC CCAGGAGTTC AAGGCTGCAG 120  
TGAGCTAAGA ACGTGCCAGT ACACTCCANC NNGAGCCACA AAGTGAGACC CTGTCTCGCA 180  
AA 182

SEQ ID NO:3743

LENGTH:180

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04402

SEQUENCE DESCRIPTION:

GATCAAAGTG GTAAAGACAA TGTAATAATT AACATTTTAA TACTGATGTT GTACACTGTT 60  
TNTACTTAAC ATTTTGGGAA GTAAGTGCCT CTGACTTCAA CTCAAGANAA CACTTTTTTG 120  
TTGCTAATGT AATCGGTTTT NGTAATGGCG TCAGAAATAA AAGGATGCTT ATNATTCAA 180

SEQ ID NO:3744

LENGTH:179

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04403

SEQUENCE DESCRIPTION:

GATCTNCGGA ATGATGAGCA CACAAGGCGG GAGCTAGCCA AGATGAAGCA GGNGCCGGTG 60  
AACCTGAAGA AGGCAGAGAT ATGGCAAACA GGATTNGCGC TTTTGGNNAC ATGGAGTGTT 120  
CAGCAAAGAC CAAAGATGGA GTGAGAGAGG TTTTNNAAAT GGCTACGNGA NCTGCTCTN 179

SEQ ID NO:3745

LENGTH:178

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04404

SEQUENCE DESCRIPTION:

GATCTGAGTG CCTCAAGATG GTTTTCAAAA AAATTTTTTT AAAGAAAATA ATTGTATACG 60

TGTC AACACA GCTGGCTGGA TGATTGGGAC TTTAAAACGA CCCTCTTTCA GGTGGATTCA 120  
GAGACCTGTC CTGTATATAA CAGCACTGTA GCAATAAACG TGACATTTA TAACGAAA 178

SEQ ID NO:3746

LENGTH:332

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04405

SEQUENCE DESCRIPTION:

GATCCGAGTT CCTCACC GCG GGC CGGGATG TGACCACCCT NTT CAGAGGT TGGACCC CAG 60  
GCTTCAAGCA CCGAGTGAGG GGTCTGTTGG GCCCCTGGG AGAGTCTCTG GTGTGAAGTG 120  
GCTTAGGTCT GGACTGGTCA GCTGTGGCAC CAGCCGGTCC TGCCACGCT TCAGGATGGC 180  
CGGGGGCTGC CCCTGTGGGA GAGTTGCCAA GACTCGGCGA TACCAAGGAT GGAAGCCAGA 240  
GGCTGTGGCG AGGGAGAGCC AAGCATATTC CCAGCACCAG GGCCACTGCT GGCACGTCGT 300  
AGACATCCAA TAAATATTTT TGGAAGGAGA AA 332

SEQ ID NO:3747

LENGTH:177

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04406

SEQUENCE DESCRIPTION:

GATCTNNATA CTGTGAATAG CAGAATGTAC AGATGAAGAA TATTAAAATN AGGGGCGTCC 60  
ACTCCAAAAC ATATCACCAG AGTGACAACT TCAGCCCTCA GCCTCTGCAA TCCATATATA 120  
TNCTGGTCTT GGGAGTCCAT AGAATACTGT TTCCTTCTAA TAAAGGTTTC AAACAAA 177

SEQ ID NO:3748

LENGTH:186

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04407

SEQUENCE DESCRIPTION:

GATCAATAAT AGTACCTTN ATTATACATT TATTATTGTN TCTCTCTCTG ATGTACTGTG 60  
GATTGTACAT TTAACCTTGG AATGGCTTGG TAATAATCAG TCTTAAGAAA ATNTTGACAA 120  
GCTCTGGTTG CTTATTTTAA GAAAATAAGG ACATTTAATA ATAATAAAAA AAAAGGGATT 180  
AATAAA 186

SEQ ID NO:3749

LENGTH:175

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04408

SEQUENCE DESCRIPTION:

GATCCCCAGT GGATGCCTGA AACCGCAGAT AGTACTGAAC CTTATATATA CTGTTTGT TT 60  
TCCTATGCAT ACATATCCCT ATGATAAAGT TTATGAATTT GGCACCTAAC AGCAGAACTA 120



ATAAGATGAA AGAGTTGTAA CAATATACTC TAATAAAAGT NATTTAAAAT GTAAA 175

SEQ ID NO:3750

LENGTH:172

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04409

SEQUENCE DESCRIPTION:

GATCAACAAT GAGCAGAAAC ATCATCAGTC CTTCCCAAGG ACCATGGCGT TTAATGTCTT 60  
GGGCACCCCT TGGAAATCAC AGAAAGTCAG CNGTACTGGC CGTGTGGAAC TTNCATCCCA 120  
AGACCTACTT TNCAACTGAG TAAGAAGGTC ATTGTGCCCN CTGCATTNNN NN 172

SEQ ID NO:3751

LENGTH:107

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04410

SEQUENCE DESCRIPTION:

GATCAAAAAA TGTTTATNCT GAATTCTNTA ATTTAAAAA NTCATACCTA TNAGGTGTGC 60  
TACAGGAATT CAGATACAAT AAGTTGCATA TAAAACCCGA CCTCANN 107

SEQ ID NO:3752

LENGTH:169

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04411

SEQUENCE DESCRIPTION:

GATCTGACCA ACAAGGCCAC AGGAAAATTA ATAGCACAAG GAAGACACAC AAAACACCTG 60  
GGAAACTGAG AGAACAGCAG AATGACCTAA AGAAACCCAA CAATGAATAT CAAGTATAGA 120  
TTTGACTCAA ACAATTGTAA TTTTGTAAAT AAACCTAGCAA AACCAGAAA 169

SEQ ID NO:3753

LENGTH:167

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04412

SEQUENCE DESCRIPTION:

GATCTNCTTG GCCAGCAGGA CGTCCAAGGA CCAGAGCCTG TGTCATGTCC TNGAACAGGT 60  
NTGCGGCGTC CTCAAGCAGG GGAGCTGAGC CTTCCANAGG CAGGGTGGGC TCCAGTTGTC 120  
TTGAGGGTCC GGATGGGCTC AGGTAATAAA GAAACGGAAG CAGCAAA 167

SEQ ID NO:3754

LENGTH:168

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04414

SEQUENCE DESCRIPTION:

GATCTGGGCT GTGGGGCCCT TGGGCCACGC TCTTGAGGAA GCCCAGGCTC GGAGGACCCT 60  
 GGAAACAGA CGGGTCTGAG ACTGAAATTG TTTTACCAAC TCCCANGGTG GACTTCAATG 120  
 TGTGTATTTG TGTAAATGAG TAAACATTT TATTTCTTT TAGGTAAA 168

SEQ ID NO:3755

LENGTH:162

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04415

SEQUENCE DESCRIPTION:

GATCTATGAT TTATNATGTC TTAATAGACC CTAAATTGTT CTTTAATTAC AAGAGTGGCA 60  
 GTCTCTGAAG TCATTTGTGA GCTTGTATGA CTTTGTATT TAGCAATGTT GCATGCTCAC 120  
 ATAATTGAAA ATTAAAAGTA ACACATTTT CTGAAATGTA AA 162

SEQ ID NO:3756

LENGTH:161

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04416

SEQUENCE DESCRIPTION:

GATCAAAACA TAATTGTTTT AATTCTACAG CTGTAGGAGC TTTGTATTGC TGAAC TTCA 60  
 TCTGGAAAAG TTTCACAGTG ACATTTTAA AAGAGAATTT TTTTATCTGC CGAATTCTAC 120  
 CAGTGTAAAC TTTTNTTAA ATAAACAATA GTTTNTCAA A 161

SEQ ID NO:3757

LENGTH:160

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04417

SEQUENCE DESCRIPTION:

GATCTCAAGA AGCCCCACAT CTTCTAAGG GGCCCCATGG CCTNNTTGG GNGCAGGGTA 60  
 GGTCTGGGG CACTGTGGGC CGCCTGCCTG CTGATGTGGG CTCTAGGCCA GCTGTGTGTC 120  
 ACGTACGTGG TGTGAAATAA AGCCCAAGCA CTNGNTGAAA 160

SEQ ID NO:3758

LENGTH:160

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04418

SEQUENCE DESCRIPTION:

GATCCTGGGT GACTTTGGGT GCACAGGGTG ACCGAGCATT TCTGCCCTG TGAATGTGGC 60  
 ACTAACACTG TGCACGTCT CCACCAAANA AGGTTCCAC TGAGTTTCTT CTCATGTTAC 120  
 TGGGTTTGTA AATGAATAA CACATTTTAA CTA CTCTAAA 160

SEQ ID NO:3759

LENGTH:158

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04419

SEQUENCE DESCRIPTION:

GATCAATAAG AAGANCCTAG TCTAGAGACA ATGATGCTAG TTTGCATATG TTTTCCTATG 60  
CAATAGTTGT TTTCCAGTN ATNCAAAGCA GCTTCTATA TGTAGAGATG CAAATNATTA 120  
AGTTGTTNCC AATACAATAA ATAAAAGCAT CNGTTNTN 158

SEQ ID NO:3760

LENGTH:158

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04420

SEQUENCE DESCRIPTION:

GATCAGATTT GTAATTTNCC TGTATTAAAT GCCTAGAACT CTACAGTCAA CAGATGGCGC 60  
TCTAGTTCCA ATTGTNACAG AAGTNCCTG CCCATCCGCA AGCAAAGCGT TGTTTTCATC 120  
AGTGAAAAGA GAATAANCAC TGTGCTTTAA CTTTTAAA 158

SEQ ID NO:3761

LENGTH:290

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04421

SEQUENCE DESCRIPTION:

GATCTGTATG GTACTATAAA ATACTTATTT NATAATTCTG TAACCGTATG GCAGTGTAT 60  
GCCAAAAATG TATAAAGAGC AATAGTTTTT GTTGCTTACT GCTGTATTTT AAAATATTGT 120  
TTCTAAAATA ATAGNGTTAG AGTTCCTTTT GAGTAATTAT TTTAAGGAC TATTGCCAAA 180  
TATACATCCT GTAAAACCTA ATAAAAGCCA CTCCATCTTT NGGTAACCAT TTAGCATT 240  
GTGCTTGGNG TACATNNTGG GTGGTTTTTG CNCGNTTAAN NANNTTANN 290

SEQ ID NO:3762

LENGTH:158

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04422

SEQUENCE DESCRIPTION:

GATCCCACCC TCTNTCCAC CTGGGCGACT GACGCTCTGG CCTCTNTGGN AATNACACTG 60  
GGCTGACCTG GCATTGGGAG AGGGAGGGAG GAAGGAAGGG AGGGAGGGGC TGGAAGATAC 120  
TGAAGGATTC CTTTTTNAAG GGTTTTTTTT ATTGTAAA 158

SEQ ID NO:3763

LENGTH:157

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04423

SEQUENCE DESCRIPTION:

GATCCAAGTC CCCTGCCTGG TCCCCACAA GGNTCCCAT CCAGGCCCCC TCTGCCCTGC 60  
CCCTTGATGAT GGACCATGGT CGTGAGGAAG GGCTCATGCC CCTTATTAT GGAACCATT 120  
TCATTCTAAC AGAATAAAC GAGAAGGAAA CCAGAAA 157

SEQ ID NO:3764

LENGTH:157

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04424

SEQUENCE DESCRIPTION:

GATCATTTN CATCTGNCA TAGCGTTTCT NCAGAAGGAA CAGTAGTCTC AAATCTTTCC 60  
TCATAATGAT AACAAAATGC TCTTGCATGA TTTNTAACA ATATATTAA NCAGGAAGTT 120  
GTCCTGATA TACTTTATTA AAAGGATTTT AATCAAA 157

SEQ ID NO:3765

LENGTH:161

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04425

SEQUENCE DESCRIPTION:

GATCGTGTGT TGCCATTNG TCTGGCTGTG GCCCCTCCTT CTCCCCTCCA GACCCCTACC 60  
CTTCCCAAA CCCTTCGGTA TTGTNCAAAG AACCCCTC CCAAGGAAG AACAAATATN 120  
ATTCTCTCT CCCAAATAAA CTCCTTAACC ACCTAGTCAA A 161

SEQ ID NO:3766

LENGTH:156

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04426

SEQUENCE DESCRIPTION:

GATCTTGAGG TTGTTTGATG CTTTAAATTT TTNAATTATA TTATTNNNTA GGTGTTTATT 60  
GGTACATTGC AGTTTTTTT TTNAATTTA AAAATTTCTG TAAACTTTG TTTCAAGTA 120  
ATCTGACAGC ATTAAATATT GCATTAAAA ATTAAA 156

SEQ ID NO:3767

LENGTH:155

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04427

SEQUENCE DESCRIPTION:

GATCCGCAAG AACAAAGTACC GCCCGACCTG CGCNGGCAGC CATCCGCAGG CCAGCGCATC 60

CTGCGACAGA AGCCTGTAAT GGTAAGAGAA GCGACCCGCC CACCAAGAGT CCTGAGCCCC 120  
TGCCCAGAGA ATAAAGCAGC TGGCTTTCTA CCAAA 155

SEQ ID NO:3768

LENGTH:155

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04428

SEQUENCE DESCRIPTION:

GATCCCAAAA CATCATNAGG CATTTTNAAG TTGGTCACGT CGCAAGTCCG ATATCACAAC 60  
TTAATTGTAA AAGGAGGGAA TCTGGTTTTG TNACTTGGCA GTGGTTTTTT CTCACCCTTC 120  
CTTTTAAACA ATAAAATCCC ATTTGGGTCT TGAAA 155

SEQ ID NO:3769

LENGTH:155

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04429

SEQUENCE DESCRIPTION:

GATCTATTG ATAATTTTNT GGGTTTTTTG AAGAATTAAT GAGCATGTAC ATAGAAATAG 60  
TGACTGCTTG ANTACTGTAT TTNCTTGCAC TCTTTCAGTA CATCAAGATT CCTGTATATN 120  
TNAGNGTATA ATAAAACACA GATGTGAGTT GTAAA 155

SEQ ID NO:3770

LENGTH:153

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04430

SEQUENCE DESCRIPTION:

GATCGGCACA AGATGCTCAG CTAGATGGGC TGGTGTGGTT GGGTCAAGNN CCCAACACCA 60  
TGGCTGCCAG CTTCCAGGCT GGACAAAGCA GGGGGCTACT TCTCCCTTCC CTCGGTTCCA 120  
GTCTTCCCTT TAAAAGCCTG TGGCATTITT AAA 153

SEQ ID NO:3771

LENGTH:153

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04431

SEQUENCE DESCRIPTION:

GATCTGAAGT GTGAGTAGAA TGTATTCAGC TGTTTAACAT GTAGTTTAGA TATTCAAAAG 60  
TATGCATGTA GAGTTTAAAG AATATGTAA AANTNATTAA TTTTAATATT TTGTTGGAA 120  
AAGCATGTTA TAATATAATG TTTTCACTAT AAA 153

SEQ ID NO:3772

LENGTH:152

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04432

SEQUENCE DESCRIPTION:

GATCTGGNAC TCCTTGAGT AAGCTGTTTT CTGCTCAGCC ACTGGGCTCT TTCACTTTTT 60  
TAGTTCTTAA AAATTTATTT TTAAGTTCTA AAATAAAATA AAAATAAGTT CTTAAAATTT 120  
ATTTTTTCC NGAATAAATT GTATTTGGTA AA 152

SEQ ID NO:3773

LENGTH:151

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04433

SEQUENCE DESCRIPTION:

GATCGCAAAT CACAGCTCAG ACAGCCAGCT CTTAAGTGAG ACCTGAGTGC CAGAGAGGGG 60  
TGGATACAAG GCCAACAGTT ACTAAATGAA TGAAAATTGT GATTCCGATG AAGCCTGCCA 120  
GAGAAATAAA GCATTTTTTA AAAGATGGAA A 151

SEQ ID NO:3774

LENGTH:151

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04434

SEQUENCE DESCRIPTION:

GATCTAGCCA TAAACTAGT AATCTTGAAT TCCTCTTGAG CTGGATGGTG ATTAGCCATT 60  
GTGAAAACAG ATTATATGGA AATTGTGCAT ATTGCTAAAT TTTAAACAT GGATTTATCA 120  
ACTGATAATA AAATATATCT TACAAGATAA A 151

SEQ ID NO:3775

LENGTH:151

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04435

SEQUENCE DESCRIPTION:

GATCTTTAGC TGCCTTTGTA TCAACTTCTN TGGAGCTTAT GTGATTTTCC AGAAAATATC 60  
CAAGGCATAG TTTTGTCCCT AAGTCCCATG AATATGTAAT ATNTNGTGTC TCTCTATTAA 120  
AATAGCACTT TTNGTGCATN CCATTAACAA A 151

SEQ ID NO:3776

LENGTH:150

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04436

SEQUENCE DESCRIPTION:

GATCCATCAA AAGGTTCTTT TTTNATAATC CCTTTTGAAA ATAATAATCA AAGGAAGAGA 60

TGTGGTGT TT GGTCATGTGG AAAACTCAAT GTATAATTAA GACGTCTNTC AAAAATCCGA 120  
 CAAATAAAAT NAAGCTGGAA CGAAGGCAAA 150

SEQ ID NO:3777

LENGTH:146

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04437

SEQUENCE DESCRIPTION:

GATCCNAAAG CACACCAGGA AGATGCTAAA GATGCTTATA CTTTCCTCA AGAATTGAAA 60  
 GAAAAACCCA AAGAAGAGCC AGGAATACCA GCAATTCTGA ATGAGAGTCA TCCAGAAANN 120  
 NNNGTCTATA GTTATGTTT GTTCNN 146

SEQ ID NO:3778

LENGTH:168

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04439

SEQUENCE DESCRIPTION:

GATCAGAGAA GTTTATGCTC ACTGTCTGAT GCAACTNTCT GGTCTATTTG TNAGTAAATA 60  
 ACAGGGAAAT CATTTTCACT TTTTGTAAA AATAAGGTAT TTACAAGCAT ACCTGTAGT 120  
 TATTGTGGGT TCAGTTTCAG ACCACTGCAA TAAAGTGAAT ATCTCAAA 168

SEQ ID NO:3779

LENGTH:149

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04440

SEQUENCE DESCRIPTION:

GATCTGACCC ACCAGTTTGT ACATCACGTC CTGCATGTCC CACACCATT TTTTCATGACC 60  
 TTGTAATATA CTGGTCTCTG TGCTATAGTG GAATCTTTGG TTTTGCATCA TAGTAAATA 120  
 AAATAAACCC ATCACATTTG GAACATAAA 149

SEQ ID NO:3780

LENGTH:144

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04441

SEQUENCE DESCRIPTION:

GATCGGGACC TGACCTGGGG CTGGCCTCAG GCCCAGGTGC ACGTAACTGC CCTCTGTGGA 60  
 AGCCAGCTTA AACCTAGCC CTNTNAGAGC TTCCTGTGCC CAGCAGGAAG GAAGTCAAAT 120  
 AAACCACACT GACTACCTGT GAAA 144

SEQ ID NO:3781

LENGTH:144

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04442

SEQUENCE DESCRIPTION:

GATCTAGGGG GAAAGAGGAG CATTATCAC AAGTTTCCTA GAGAGAGGAG ACAAATCGGT 60  
GTGCCATTGA CAACATGAGC CAGGGTAAAG GCACCCTTNN NNNTTACTGA TTTCAAAGAT 120  
TAATAAAGTA ATTCTATTTT TAAA 144

SEQ ID NO:3782

LENGTH:139

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04443

SEQUENCE DESCRIPTION:

GATCTATGAC TCATTTGACA GAGAAGCCAA GGAAAAAAG CTGCTTGGC CCATTAATC 60  
AAATCCACCA AATACTTTTG TCTAAGTTCT CATTCTTTCA ATTGTATGC ACCAGAGATT 120  
AAAAAGCTTT AACTATAAA 139

SEQ ID NO:3783

LENGTH:137

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04445

SEQUENCE DESCRIPTION:

GATCTGTGTC TTGAAGCAGC TGCCCTCATT CCGACTTCAG AAAATCGAAG CAGCTGGCTC 60  
CTCCCCTGT TCTCTCTCCC ACCCTCCCC AAATCTGTTT TCATGTAAAA GACAAATAAA 120  
TGATGACTTC CCCCAA 137

SEQ ID NO:3784

LENGTH:137

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04446

SEQUENCE DESCRIPTION:

GATCAAAATA AAAATGTACA TGACGGGGAA GGGAAAAACC TGTGGAGTT GCTTCCAGCC 60  
AGCCACGCTC CGGGCCAGCA TGTGGAATC CAGCGTGGAG CAGATGCAGT AAAAATATGG 120  
TTGGTTTCTG TGTGAAA 137

SEQ ID NO:3785

LENGTH:137

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04447

SEQUENCE DESCRIPTION:

GATCTCTCTC TCNTTTTACC CCCCTTAGGC TGAGGGTAAA AAGCTGGGAT TGGTAGGCTG 60



GGTCCAGAAC ACTGACCGGG GCACAGTGCA AGGACAATTG CAAGGTCCCN TCTCCAAGGT 120  
GCGTCATATG CNGNNNN 137

SEQ ID NO:3786

LENGTH:133

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04448

SEQUENCE DESCRIPTION:

GATCGGCCAA GTATGCTNTT NTTTAGAGCA ATGTTTTGCC CTAGAGANTT GTAAAATTTA 60  
TGTNATGACT CAGTACATAT GTGTTCGTAC ATATATGATN GGAATAAAAT GTTTATGAAA 120  
TATTNACTCA TAN 133

SEQ ID NO:3787

LENGTH:132

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04449

SEQUENCE DESCRIPTION:

GATCTGTGTG ACCTCACCTG CATTTGATTG AAAAAAGTAT GCGCGTAATT GTACCCACCC 60  
AGTTCAAACC CGTGTGTAAG GGTCAACTGT ACAAAAAAGT TTGTGAAATA AACGTACTGG 120  
AGAATCTTTA AA 132

SEQ ID NO:3788

LENGTH:130

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04450

SEQUENCE DESCRIPTION:

GATCAGTATT TAANATTATA CCAGTTTNA TTAAACCCCTT TCCCTCCCCG ATAAAGAATG 60  
TTCTATTCTT GCCTCCCCTT AAAGGGGAGA CCTCAGAAGT AAAGNAATTT NATGTTGTGT 120  
TTTTNTTAAA 130

SEQ ID NO:3789

LENGTH:129

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04452

SEQUENCE DESCRIPTION:

GATCCCCCTT CACCTTTTGC CATGGTCATA AGCTTCCTNA GGCCTCCCTG GAAGCTGAGC 60  
AGATGCCAGC ACCATGCTTC CTGTACATCC TGCAGAACCA TAAGCCAATT AAACCTTTTT 120  
AATAATAAA 129

SEQ ID NO:3790

LENGTH:129

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04453

SEQUENCE DESCRIPTION:

GATCCNCCAT GGTGGACACG TCTGTNCTGT ATGTAAAAGG CATTACAAAT GTTTTTTAGC 60  
AGATGAGACT TGAAGCCTTT CCACAGTCCT TGTNCTCTGA GATGGCTGTN GAGCTCTGCT 120  
CANCTGTTN 129

SEQ ID NO:3791

LENGTH:126

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04454

SEQUENCE DESCRIPTION:

GATCCCTACC CCTCANCAAC TAGCTCCCCT GTCGGCCAGC TAAGAGAGCT GGGACANTGG 60  
AGGCTGGCAG AAGCTGAGAC GTGACTGTCT AGGAGTAACA CTCATTAAAG CTTTCNTTTT 120  
GGCAAA 126

SEQ ID NO:3792

LENGTH:126

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04455

SEQUENCE DESCRIPTION:

GATCTGAAAA AGCAACCCAT TTCCTAAATT CATATTTTNC CTAAACTTT ACTATGTTTT 60  
NATTTAAGA GGTTCCTGT TATATACACT TTNACACAT GCAAATAAAC TTTATACCAA 120  
GTGAAA 126

SEQ ID NO:3793

LENGTH:126

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04456

SEQUENCE DESCRIPTION:

GATCTGTTTA GAAAATACCT TTGAAAACGA GGGTAACTTT AAAAAATGGA AACTTTCAAA 60  
TCCATTTATA TTTNNTTAT AANCAAACT TAATTTAAAG TTAAACAAAC TGGCTGAAAA 120  
CTCAAA 126

SEQ ID NO:3794

LENGTH:126

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04457

SEQUENCE DESCRIPTION:

GATCACTGAG CTGCCNTCA AGGGGACCTG GANNCCGGGT CCTGGGGTCA TGCTGCCTCC 60

NAGGCTCCAA GGTGAGGGTC ATCTTCACGA GCAAAGAGAA CCAATAAAGT GACAACGNAC 120  
GTCAAA 126

SEQ ID NO:3795

LENGTH:123

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04460

SEQUENCE DESCRIPTION:

GATCCAGGGC TTTGAGGGC TCTCCTCATT GAGTTCAGAG TCACATATCA GAGGNTTAAA 60  
TCCAAAAGAA ATATGCACAC CCCTCTCCTC CCTCCAGTA AAAATAAATC GCTCCTCTTG 120  
AAA 123

SEQ ID NO:3796

LENGTH:125

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04462

SEQUENCE DESCRIPTION:

GATCTCTGTG CTGTAAACTA AAACAAATTG TGCATTCCTT CCGGGGCCAT CGTCTTTGTT 60  
TTCTTTTTTG TCTGAATGA ATTTTAAAG GAAATATATA ATAAAAATGT TAACCAGAAG 120  
GTAAA 125

SEQ ID NO:3797

LENGTH:119

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04463

SEQUENCE DESCRIPTION:

GATCTGGGGG CCCCCCAGC TGGCGGGAAC CCCAAATGGA CACAACTGT ACATTGCCA 60  
ATGGGTTTTT TTCAGACCAT GGTTTTACT TGCAAATAAA CCTGAGTTCT TTTCTGAAA 119

SEQ ID NO:3798

LENGTH:133

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04464

SEQUENCE DESCRIPTION:

GATCTAAAAAN NATACTNTGT TCCCTCATAT GCATGCCCTT CCTTTCTATA TCCTTGACAC 60  
CTTACTTTCC CATTGTAACA ATAAAAAAG TATCAATAAA ATAATTATTG GCAAATAAAT 120  
TGGTGAGTTG AAA 133

SEQ ID NO:3799

LENGTH:119

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04465

SEQUENCE DESCRIPTION:

GATCCTGCAG TGATGGAATG TTCTGTCTTG ATTGTAGCAA CACCAATATN CTGATTGTNA 60  
TATTATACTA TAGTTTTGCA TAACAGTTAC CATTAAAGGA AATTGGGTAA AAGGCTAAA 119

SEQ ID NO:3800

LENGTH:118

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04466

SEQUENCE DESCRIPTION:

GATCTCTTAG CAAATAGGAA TCTAGGTGTA GAATTTATAC ACATATATAT TTTTAAAAGT 60  
ATAAAAATGA GAAAGTATGT ACAAAAAATC ATCCTAAATC TTAGAAAGGA GACATAAA 118

SEQ ID NO:3801

LENGTH:117

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04467

SEQUENCE DESCRIPTION:

GATCTGGGAG CCAGCAGCTG GATGCTGTGG CTGGCCAGAN ACACCTCCAG GCTGTGGCCT 60  
GGGGGCTGGG GGGAGCCCCA GGCTGAAAAG GGTCCAATTA AAACAAATGG AGCCAAA 117

SEQ ID NO:3802

LENGTH:117

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04468

SEQUENCE DESCRIPTION:

GATCACATTC CAGCCCTCGC TGCTGGGGTG CACACCCCTT CCTTAGNTGA TGTGCTTGGG 60  
AAACTCCCTC CCCCTCCTC CCAAGAGAGA AATAAANCA CCTTCGCCTA GGNCAAA 117

SEQ ID NO:3803

LENGTH:116

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04469

SEQUENCE DESCRIPTION:

GATCCTGACC TCCTCCAAGG AAGAAATCCA GAAAGCCTTA AGACTAAGAC AACTTGACTC 60  
TGCTGATTCT TTTTTCCTTT TTTTITTTNN AAAANAAAAA TACTATNANC TGGAAA 116

SEQ ID NO:3804

LENGTH:115

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04470

SEQUENCE DESCRIPTION:

GATCAGAACT CCAAAACCAC TCCCACCCCT GAAGGTCGGG AGGGTCTGAG CAGCCCTGGT 60  
GGCTNCTTGT GCTCAGGTCC TCAGCTCCAT GGGAAATAAA AATGGCACCC TGAAA 115

SEQ ID NO:3805

LENGTH:114

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04471

SEQUENCE DESCRIPTION:

GATCAACATA TTTAGCTTAT ACAGAAATAA AATTAAGTCA ATCCACTCAC AAAGAATTTC 60  
TATTTTGTA AATGTAGCT TGTATTTTAT TATAATAAAA TCTGATGTAA GAAA 114

SEQ ID NO:3806

LENGTH:114

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04472

SEQUENCE DESCRIPTION:

GATCANAGCT NTCCCAAAGA GGGAAAGCGG TGAGGTTTNA GGAGGGGCAG AAGCAGGGCC 60  
GGCAAAGNTT GTACCTNCAT AAGGTGGTAT GGGGGGTTGG GGTGAGGCC TGAN 114

SEQ ID NO:3807

LENGTH:112

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04473

SEQUENCE DESCRIPTION:

GATCGAAAGA CTCAGGGAGA GCGGTCCTNA CCACCTGGAA GTAAGTCCCA CCTGGACCTT 60  
ATNAAAATA CTCACTCCAC CTGGGCCCT GCTGAAGCCN NNTTTTAAAA TN 112

SEQ ID NO:3808

LENGTH:111

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04474

SEQUENCE DESCRIPTION:

GATCTGTTTC GTGCATTGGA AGACCCACCA CAAGCTTGGC ANACTAANTN TTGTATCCTG 60  
GGGCTCCNT CATCTCCAGG GAGACCAAAC CCCGGCCCTA CCAGNGCCCG N 111

SEQ ID NO:3809

LENGTH:108

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04476

SEQUENCE DESCRIPTION:

GATCAAGACT AACAAATAAC TTTGTGATGA AAATNCTTCA AAAATATAGC TACTCTTTTC 60  
AAGTATACCA TTAAAAATAT TTCATCAGGC AGAGCCCTGA CCAGGAAA 108

SEQ ID NO:3810

LENGTH:108

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04478

SEQUENCE DESCRIPTION:

GATCAAGAA ANTNAGGACA ACGAGAAAGT TAAAAAGTTC GAAAGCAGCA AGATNCCTTT 60  
CCCCCTGGT CAATCCTGA CACAAGAGAA GGCAGAGACC CTGAAGCN 108

SEQ ID NO:3811

LENGTH:182

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04482

SEQUENCE DESCRIPTION:

GATCTTCAAG CAAGGGAAAT GATTCTTAAA AGGATTATCT GAAATTGAAA AACTAGTAAG 60  
CAATAAATG ATAAACATAA GTAAATTAA NCTGTTGTTT GTATAAAACA ATTATAATGA 120  
NGTGTTTATA AGANATTGTA AACAAATGTA AANCTAAATN ANCATTGTTA TGCAACATTA 180  
AA 182

SEQ ID NO:3812

LENGTH:105

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04483

SEQUENCE DESCRIPTION:

GATCTCCCCA AACTAAAAAG TACAGTACTT GGAATTGTGT TCTTTATGGT TGTAAGTGTG 60  
GTAAAGCACT AATATGCAGA AAATAAAGGA ATTACACAGT GCAAA 105

SEQ ID NO:3813

LENGTH:105

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04484

SEQUENCE DESCRIPTION:

GATCCNAAGC AGTGAACATG CTGTTAATAC TTGTAAGACT CCTAGCAAAC TGCATTTAAT 60  
TTTTTAAATT AGTTTTAGTG TACATAAAGG CATGTNTTTN CCAAA 105

SEQ ID NO:3814

LENGTH:105

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04485

SEQUENCE DESCRIPTION:

GATCCATGGG ATTNATAATT GAAATAGAGA TTGGAGACCC TCCTATTCAN TTCATAAGCA 60  
ATNGCACCAC AGGTCANATG CAGTTATCTN AACTCCAGGA AATTN 105

SEQ ID NO:3815

LENGTH:104

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04486

SEQUENCE DESCRIPTION:

GATCTTGCTA AATTATTAGT TCTAGTAGCT TTTTGTAGA TTCATTAGGA TTTTNTACAT 60  
ACACAATCAT GCTATTTGCA AATAAATAA TGCTTTTATC CAAA 104

SEQ ID NO:3816

LENGTH:104

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04487

SEQUENCE DESCRIPTION:

GATCGAGTCC AAGGNAGACT ATGTCCTCTN CTACCAACGN CAGGNCGTGG CGCGACGCCT 60  
GCTGTCCCCG GCCGGCTCAT CTGGCGCCCC AGCCTCCCCT GNCN 104

SEQ ID NO:3817

LENGTH:103

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04488

SEQUENCE DESCRIPTION:

GATCAGCACT GTGGTGAGCT CCAAGGAAGT GAATAAGTTT CANATGGCTT ATTCAAACCT 60  
CCTTAGAGCT AACATGGNTG GGCTGAAGAA GAGAGACAAN NNN 103

SEQ ID NO:3818

LENGTH:103

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04489

SEQUENCE DESCRIPTION:

GATCCCAAAC CTNAGCTCAA TCAGTATTGC CAGANAGGGG TAAGACTGGT TGGAAGCTGA 60  
CTGCAGACTT NNTTCCCCT TAGTATGTNC TGTGTTGTAA ATN 103

SEQ ID NO:3819

LENGTH:102

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04491

SEQUENCE DESCRIPTION:

GATCACTAAG CAAAGCTGCT AGTGGGATTC TATATTTCGT GTCATCTTTT TTATNATAAT 60  
NTATTGCAAA TATTTTCTG AATAAATATA TGTTGTGTGA AA 102

SEQ ID NO:3820

LENGTH:102

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04492

SEQUENCE DESCRIPTION:

GATCCTGCCA CCAGGGTTNT TTTGAAATAG TACCACATGT AAAAGGGAAT TTGGNTTNA 60  
NTTCATCTAA TCACTGANTT GTCAGGCTTT GATTGATAAT TN 102

SEQ ID NO:3821

LENGTH:102

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04493

SEQUENCE DESCRIPTION:

GATCTTGTTT AATCGGAAAC CCCC GTTACC TCCTCTTTT CTTTCTCTT CTTTTTTTTT 60  
TTTAAC TNAA ANATTTTNAT GATGATTAAG ANGGAAGTG TN 102

SEQ ID NO:3822

LENGTH:102

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04494

SEQUENCE DESCRIPTION:

GATCCCAAAC ACTCNATCCT GTAAGNCGGG TACAGTCCTA TTGTNTGTTN NCACACTGAT 60  
GATGTGAGCC TGTGAGATGA GCCAATCACC AGTTGTTATG TN 102

SEQ ID NO:3823

LENGTH:101

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04495

SEQUENCE DESCRIPTION:

GATCTCATGT ACTGAAAAA AATTCTTAAT TTTATTGGAG TTTATACCAC TGTGAAACTG 60  
CAATATGACT GTAAGAGAGT AAAAAGATTG TNACATCTAA A 101

SEQ ID NO:3824



LENGTH:101

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04496

SEQUENCE DESCRIPTION:

GATCTGGGAG TCTGAAATGG TAGCNTTTTG TCCCTGTCTT CACACTATCA TAGGGAGAAT 60  
CAAAAGANCT AACAAATATA ANCATGCTTT GTGAATNNCC N 101

SEQ ID NO:3825

LENGTH:100

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04497

SEQUENCE DESCRIPTION:

GATCTNTTTT NTNTCTATTT TTTGAGGTAC ATGCTACATA CATTTTNTNT GTAAACAACT 60  
ATTTAGCATA TTGAATAAAA TAACATTTTA AAAATAGAAA 100

SEQ ID NO:3826

LENGTH:97

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04498

SEQUENCE DESCRIPTION:

GATCCCACGG CNAACACTCA CCACNCGCTA CCATACGCCN TCCCAGAGCT AGGGGCTGCC 60  
TTAAAGGAAA TTGTAGCCTA AGTAGGTCAT GGCAAGN 97

SEQ ID NO:3827

LENGTH:96

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04499

SEQUENCE DESCRIPTION:

GATCAGCCAC ATCAACTCAG TTGTCCACCA CAGGGGAATT TTNAATGTCT TTTGTTTTTG 60  
TNTTGTTTTG AAAATAATA AACAGGCAAC TGTAATA 96

SEQ ID NO:3828

LENGTH:95

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04500

SEQUENCE DESCRIPTION:

GATCTATTTG GCCTCTCAAA TGAAGTGA TCCCTGTAA AAAAGATTGA TGTTATTGTC 60  
TCTGTAGAG GAACTAATA AAGCTGCAGG NGAAA 95

SEQ ID NO:3829

LENGTH:94

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04501

SEQUENCE DESCRIPTION:

GATCTATCAT AATTGCTTTT CTGATGCATT TAAAAATAAA TGGAACACTT AAATGTATAT 60  
TACCGATGCA AACTGTGGAT AAAGTTGAAA GAAA 94

SEQ ID NO:3830

LENGTH:94

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04502

SEQUENCE DESCRIPTION:

GATCACAGGC CTGGCCGCGG TAACAGACTT TTACATGGAA TTGTTTAATT ATTTGTACTT 60  
TTCATGCCAG AAAATAAAAG TTCAGAATCT TAAA 94

SEQ ID NO:3831

LENGTH:94

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04503

SEQUENCE DESCRIPTION:

GATCACTACG ATTAACGACG GTCGTAATGT TAAGACGTCG TCTCCATGAN CTTGGGGGG 60  
ACTTTAATNT GGAATAAAGA AACTATCACT NAAA 94

SEQ ID NO:3832

LENGTH:93

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04504

SEQUENCE DESCRIPTION:

GATCCAGATN AAGTGCTGAA GAAAAGAAAA AAGAAGTGGA GAAGAGTATG NTTATNCTTC 60  
TCCTTATTAA AGAAATTTNC TCAAAACAGC AAA 93

SEQ ID NO:3833

LENGTH:88

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04506

SEQUENCE DESCRIPTION:

GATCTATCCA GTGACGTGGC CTGGTGGGCG TTTCTCCTTG TACTTATGTG GTTTTTTGGC 60  
TTTNAATACA GACATTTTCC TCCAGAAA 88

SEQ ID NO:3834

LENGTH:86

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04507

SEQUENCE DESCRIPTION:

GATCCCAAAA TATGGTAAAG TGAACCCATC TGTCTGCATT TTCTACTCTG AGCCCATTTG 60  
TTAATAAACA CTTATTTTTA TATAAA 86

SEQ ID NO:3835

LENGTH:84

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04509

SEQUENCE DESCRIPTION:

GATCCGGGCC CCAGGCTGCT GCCGCTTTT ATAAC TTAT ATTATTTT TTTAAGAAA 60  
AAAAGCTCTT TAAATACCT CAAA 84

SEQ ID NO:3836

LENGTH:82

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04510

SEQUENCE DESCRIPTION:

GATCTGAGGA GCAAACCTCC GTGGCACACA TTTACCTGCA TAACAAACCT GCACATCCTG 60  
CATGTGTACC CCAGAACTTA AA 82

SEQ ID NO:3837

LENGTH:81

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04511

SEQUENCE DESCRIPTION:

GATCCAGGAG GCTCAAAGAG AAGCCAAGTC AGCTTTGTTG TGATTGATT TTTTTAAAA 60  
AACTCTTGTA CAAACTGAA A 81

SEQ ID NO:3838

LENGTH:81

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04512

SEQUENCE DESCRIPTION:

GATCGTACT GTTATGTGGG ATTATTATTT CTAAATNTTA CTCATTGAAA TAAGCATACA 60  
ATAANANGCA TTTATTGCAA A 81

SEQ ID NO:3839

LENGTH:80

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04513

SEQUENCE DESCRIPTION:

GATCAAAACA AGACCCAGCT TATTTTCTGC TTGCTGGTAA ATTAAGCAAA CATGCTATAA 60  
TAAAAACAAA ATGAAGGAAA 80

SEQ ID NO:3840

LENGTH:78

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04514

SEQUENCE DESCRIPTION:

GATCTGGTTG AAAATTGTAT TTCTATGTAA ACTCAACGAT ATGTTTGGTT TTCCTGAAAA 60  
TAAATAATTT TAAATAAA 78

SEQ ID NO:3841

LENGTH:75

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04515

SEQUENCE DESCRIPTION:

GATCCTCACA CCTCAGCGTC CCAGAGTGCT GGGATTACAG TTGTGAGCCA CTGTGCCTGG 60  
CCTTTTTTTT TTTN 75

SEQ ID NO:3842

LENGTH:74

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04516

SEQUENCE DESCRIPTION:

GATCAGAAAT CTGAGGTTCA ATGAGGCCAG AATAACTCAG CTTCAAAATG AATAAATGTG 60  
GAAGCCAGCA CAAA 74

SEQ ID NO:3843

LENGTH:72

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04517

SEQUENCE DESCRIPTION:

GATCTCCCCT TGGACTGATA CCCTTTTCCC ATTCATTAC AAATAAATTA CAATGGGTGC 60  
TGAGAACTTA AA 72

SEQ ID NO:3844

LENGTH:78

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04518

SEQUENCE DESCRIPTION:

GATCTGTGTC ATGGTTTAT AACCTTTNTN TTTTGTAAC CTTGAATGTT CAAAATTAAC 60  
ATGCTGTTTA CTCTGAAA 78

SEQ ID NO:3845

LENGTH:71

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04519

SEQUENCE DESCRIPTION:

GATCAGGAAG AACTAAACAA AACCCACACT CCAAAAACTA ACAAAGAATA AATAAATAAT 60  
ATAAAATAA A 71

SEQ ID NO:3846

LENGTH:71

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04520

SEQUENCE DESCRIPTION:

GATCTCAGAA CAGANTTAAA ATATTGTGAA AATTACAGCT TAATAAATGT TTATTGTAAT 60  
TTTNTTGTA A 71

SEQ ID NO:3847

LENGTH:69

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04521

SEQUENCE DESCRIPTION:

GATCTAGGAC TTGCCTTATT TTATCATTTT TCTTTAATAA TCTCCAATAA ACTTTCTTTA 60  
TTCATTAAA 69

SEQ ID NO:3848

LENGTH:69

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04522

SEQUENCE DESCRIPTION:

GATCACCACT AAAGAAGTTA CTCATATAAC CAAATACCAC CTGTNCTCCC AAAAACCTAT 60  
GGAAATAAA 69

SEQ ID NO:3849

LENGTH:69

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04523

SEQUENCE DESCRIPTION:

GATCAGTATG CTGTTTAAAT AATTATGTGC CATTTTAATA AAATGAAAGG GTCAACGGCC 60  
CNNTTTAAA 69

SEQ ID NO:3850

LENGTH:67

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04525

SEQUENCE DESCRIPTION:

GATCTACACT GATGATTAAA TCAAATTGGC TAAGATTATT CGTTCTAATA AAAGCACTGA 60  
CTCCAAA 67

SEQ ID NO:3851

LENGTH:67

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04527

SEQUENCE DESCRIPTION:

GATCTCTTCC TGTTTTGTAC ATAGATTAT TTTTCAGTTC CAAGAAAGAT GAATACATT 60  
TGTNAAA 67

SEQ ID NO:3852

LENGTH:67

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04528

SEQUENCE DESCRIPTION:

GATCTAGCAT ATGTATCTTT TTAAAGGTA TTGTTAATAA ATATNCTGTC ATTTGTAAAG 60  
ATANAAA 67

SEQ ID NO:3853

LENGTH:66

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04529

SEQUENCE DESCRIPTION:

GATCCATCTT CAAATCAAGG GCTCCCTGGC TACCAAATNC TGTCTAGTAA AAATNATTCG 60  
AGCAAA 66

SEQ ID NO:3854

LENGTH:64

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04530

SEQUENCE DESCRIPTION:

GATCTATTCA ATGTACAAAA TATTTTGAAA GTTCTGTGA TTAAATGTNC TTTGAAAACA 60  
TAAA 64

SEQ ID NO:3855

LENGTH:64

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04531

SEQUENCE DESCRIPTION:

GATCTGTTAT NAACACCTTT GTTGGCTGG TTCAGTAATA AATATGTNAG ACTTTTCATT 60  
TAAA 64

SEQ ID NO:3856

LENGTH:62

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04532

SEQUENCE DESCRIPTION:

GATCTGTGTA AGCTCTGAAT GAACTTCTTT ACTCAATAAA ATTAATTTTT TGGCTTCTTA 60  
AA 62

SEQ ID NO:3857

LENGTH:61

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04533

SEQUENCE DESCRIPTION:

GATCCAAGAT ACGTCATTTT TGTATTGGCA AAATGCCACT ATTAAAGTGT AATTCTTGAA 60  
A 61

SEQ ID NO:3858

LENGTH:60

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04534

SEQUENCE DESCRIPTION:

GATCTCAAGT GCTTAATGAT AAGGTGTTGA CTTGTAAAT TAAACCATTG GGAATACAAA 60

SEQ ID NO:3859

LENGTH:60

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04535

SEQUENCE DESCRIPTION:

GATCAAATGC CCTAAATGT AGTGACCCGT GAAAAGGACA AATAAGCAA TGAATACAAA 60

SEQ ID NO:3860

LENGTH:60

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04536

SEQUENCE DESCRIPTION:

GATCTGAGAC TTTGAGTCTC CAGAACTGTG AGAAAATAAA TTTCTGTTTC TTAAGCCAAA 60

SEQ ID NO:3861

LENGTH:60

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04537

SEQUENCE DESCRIPTION:

GATCTTTCCT GTCTTCCCA AGTTTGCATT TCCGACATTA AAGTTTACTT TTNAGTTAAA 60

SEQ ID NO:3862

LENGTH:59

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04538

SEQUENCE DESCRIPTION:

GATCAATCAG GGAGAAAATA CAGAAGAGAA TAAAAGAGA CTCATTCAGT GGAAGCAAA 59

SEQ ID NO:3863

LENGTH:59

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04539

SEQUENCE DESCRIPTION:

GATCTGAATT AAGCTGTCTG CCATTGGAG AAATTTAAAT ACTATTTTAA ACACACAAA 59

SEQ ID NO:3864

LENGTH:58

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04541

SEQUENCE DESCRIPTION:

GATCCACCCA GGCCTTTCNG TGAAATAAAA GCTCCCAAGT TGGGTACAAA CCAGGAAA 58



SEQ ID NO:3865

LENGTH:57

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04542

SEQUENCE DESCRIPTION:

GATCCCAGTC TGAAGGATTA TTGTGAAGAA TAAATGAGAG AATGTGTAAA TGGCAAA 57

SEQ ID NO:3866

LENGTH:56

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04543

SEQUENCE DESCRIPTION:

GATCTGTGTA TTTGATTTTG TACTTTAAAT GTGACAAATA AACCTTTTGG GAGAAA 56

SEQ ID NO:3867

LENGTH:55

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04546

SEQUENCE DESCRIPTION:

GATCTAATTC TGAAAACATT GTAATAAAAT AATNAGCTAT AATGGTATTT TCAAA 55

SEQ ID NO:3868

LENGTH:55

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04547

SEQUENCE DESCRIPTION:

GATCTCGAGC GTTTATCTCG GGCTTTAATT TGCTAAAGCT NTGCACATAT GTAAA 55

SEQ ID NO:3869

LENGTH:85

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04548

SEQUENCE DESCRIPTION:

GATCTGCCAT GCACTCCAGC CTAGGCAACA AGAGTGAAC CTGTCTCAAA ATAAAATAAA 60  
ATAAAATAAT AATAGTAATA ATAAA 85

SEQ ID NO:3870

LENGTH:52

TYPE:nucleic acid

TOPOLOGY:linear  
 CLONE:HUMGS04552  
 SEQUENCE DESCRIPTION:  
 GATCAAAGGT CATTTGTGTA GATGAGTAAT TAAAAAATAT TTAAATCACA AA 52

SEQ ID NO:3871  
 LENGTH:51  
 TYPE:nucleic acid  
 TOPOLOGY:linear  
 CLONE:HUMGS04556  
 SEQUENCE DESCRIPTION:  
 GATCAAATAG AACAGGGTT TGCAAGTNTC CATACAGATG CCTCTACCAA. A 51

SEQ ID NO:3872  
 LENGTH:50  
 TYPE:nucleic acid  
 TOPOLOGY:linear  
 CLONE:HUMGS04557  
 SEQUENCE DESCRIPTION:  
 GATCCTATGT AAAATATATA TTTATGTATT AAAAATACTG AAAACATAAA 50

SEQ ID NO:3873  
 LENGTH:443  
 TYPE:nucleic acid  
 TOPOLOGY:linear  
 CLONE:HUMGS04597  
 SEQUENCE DESCRIPTION:  
 GATCCTATTT TATAAGGAAT CTTTTTTATA CGAATGTACT TATTCTTTTA GATATCAGTT 60  
 CTTGAATGTA TACTCCTTAT GATATACAGC AAGAGATTCT TGAGGTCCC AAGAATTGTC 120  
 CTGGAAGAA AATTGATTTT GAATTGAGAT TAGCAGTGTT TTAATTCGC TGAGATAACT 180  
 CCTTAACTC AGCACTTCA CAAAACCTAA ATATTAAATA AATTGAATTT GAGGCTGGCA 240  
 TTCTTCTCTA AATTGAATTG GACTGGTTGT TTGCTGAGGT ATGAATGGAG CAGCTCGGAA 300  
 GTATTATAAT TCCGTAGCTG AAACAGGACG CTTATTTATG TATGNTCAA TCTCTNCTCA 360  
 TTAAAAATG NCTCAGCATT TCCNGCCATT TAGATAGGTA AATNAATAGT CCATTANNTT 420  
 TGNTNACCTA CCATAANTAT TTN 443

SEQ ID NO:3874  
 LENGTH:423  
 TYPE:nucleic acid  
 TOPOLOGY:linear  
 CLONE:HUMGS04598  
 SEQUENCE DESCRIPTION:  
 GATCTATGGT ACAGTTCATT GGCAGAGAAT CCAAGTACTG TGGACTTTGT GATTCCATAA 60  
 TAACCATCTA TCGGGAAGAG GGCATTCTAG GATTTCCGC GGGTCTTGTT CCTCGCCTTC 120  
 TAGGTGACAT CCTTTCTTTG TGGCTGTGTA ACTCACNNCC CTACCTCGTC AATACCTATG 180

CACTGGACAG TGGGGTTTCT ACCATGAATG AAATGAAGAG TTATTCTCAA GCTGTCACAG 240  
 GATTTTTTGC GAGTATGTTG ACCTATCCCT TTGTGCTTGT CTCCAATCTT ATGGCTGTCA 300  
 ACAACTGTGG TCTTGCTGGT GGATGCCCTC CTTACTCCCC AATATATACG NCTTGGGATA 360  
 GACTGTTGGT GCATGCTACA AAAAGAGGGG GAATANGNAG CCGAGGGAAA TAGCTTATTT 420  
 TTN 423

SEQ ID NO:3875

LENGTH:413

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04599

SEQUENCE DESCRIPTION:

GATCCAAATN ACCATCATCT CTGATGGAGA TGGGTTGGGT ACCTGGCCTT CATGGCACCT 60  
 TCACTGCTAG GGATGCTCAA GGGGCAGGCC TGGGGCCTTC CCTCCTGTCT CTCTCGGTC 120  
 TTTCTCTCT GAGCANCCTC CTACCTCCCC TGCCTGAGCC TCACTCCACA GCCCTCCCAG 180  
 GTACCTAGCA GAGGCTGTCA GTCCTTGGCT CACCTGGAAC AGGGCTGGGG CTGGGTTGGA 240  
 ACAAGGTGTG TGCCNCACCA CATCTCTATG ACTCTGTTCT CCCTCCCTGC ATTGTGGCTC 300  
 TTGTATTTGA GGGCCTCAAG AGAGTGAGGC CCTACCATCA CTGTCCATAT TAAGTCCAAG 360  
 CCCAAGTGNG GTTCTCTGT TCCCTCNTAA GCAATCAATN GTTNAGTTTC TAN 413

SEQ ID NO:3876

LENGTH:410

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04600

SEQUENCE DESCRIPTION:

GATCCACCTG CCTCGGACTC CCACAGTGCT GGGATTACAG GTGTTAGCCA CCACCCCGAC 60  
 ATTATTTGAA ACTTTTATTT TATCATGAGA GAGTTCAGG AGTCAACTGG AGAGAGATTT 120  
 TTGGTATGAA AATTACATAT GCAAAAAGAC TGATTCCAGT ACATGAAATT AAATTCAACA 180  
 TTTACATTAA ATGCCCTCAA ATATGGTAAA ATGGTTTCTT TTGGCACNNT ACCTCATTAT 240  
 GTTTGAATG ATTTGGTCTA TCATATGAAA TAACTTTTAT AAATATAGTA NTCAGGCCT 300  
 GGGCACAGCG GCTCAAGTGG GAGGNCTGCT TAAGCACCCG AGTTTNGAC CAGCGTGGAC 360  
 AACATGGGGG GACCCCTTNC TGTCCCAAAA NTAGCTGAGC ATGGCAGCGN 410

SEQ ID NO:3877

LENGTH:402

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04601

SEQUENCE DESCRIPTION:

GATCCCAACA ATGGAACCTT CCTTCTCTGC TGTCAACAAA GGAATAAAAA ACTTCTGTGT 60  
 GATTTGATAC AGACAATTTA GAAAACCTTT GTTTCAAAGT TTCCCATCCA GACTAGCCAA 120  
 GGAGAGCAAG GGAGGGNNNC TAATAAGCCC ATTAAGGTGT CTTCCCAAAC AAATGTTTTT 180  
 TTGTCTCTT TGCCCAAATG CAGAAACAGC TGCAGCTTTA AAAANTAGCA TACTTTTATC 240  
 TTTTGANGGA AATATGTGAA AGTTTGTAGCA CTGGTTGTCT TTGGTTGGCA AGAAATTGTT 300

NAGTGTATN NATTNCTTCC TATTTGNCTG AATTTNCCA AATTGTCCA CAGCAAGCAT 360  
 GACTACTTTN NTCATATNAA ATCTCCANTG NATTTATGCA AA 402

SEQ ID NO:3878

LENGTH:393

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04602

SEQUENCE DESCRIPTION:

GATCTTGTC AATAAATCTA ATTTATATCA AATTTATGAG AGAAAGTATT TTCCTAATNA 60  
 TGGTCAAATA AATTTGGTTA ACATCCTAGT GATTCTCTTT CTATATAATA AGGCAATTAC 120  
 AGTTTTCAAA GCATTAAGTC TAACATAACT TTAAACATTC TCTTAGGTTT CAAGACACTT 180  
 CTATTTAATA TTCATTGGGG AAAAGTTGTC CAGCTATCAG CTAGNGAAAA CACATGCAAA 240  
 TATGGTTGTG TAAAGTTAAG GGTATANGG NANNANANAT CAGTAGAATT ACATAATACT 300  
 AAANGTTGCA GTTGAAGGAA TATCCCAGTN TGTGTTGGTA GTTNCTNNAA GNNTTNTAGC 360  
 TGTNATTGCC TTGTTTTNT AGCCCTTNGT TTN 393

SEQ ID NO:3879

LENGTH:392

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04603

SEQUENCE DESCRIPTION:

GATCTNAAGC TTNCINCTTG GACACCCCAT ACCCANAGTC CTCCAGGCCA CCCTTAAGTA 60  
 CAATGTTCTC CTACCTAAGA AGGCATCTGG ATTTTNTCTT TCCTTGGAAG TAGTAAAGAA 120  
 CTACTCTTTG ACTGTTTTTG ACCTCACAGT GAACCTCAAA TACACTGGAA TTCGCAATAA 180  
 ATCCAGTATG GTGGTTATAG ATGTAAAAAT GCTATCAGGA TTTACTCCAA CCATGTCATC 240  
 CATTGAAGAG CTTGAAAACA AGGGCCAAGT GATGAAGACT GAAGTCAAGA ATGACCATGT 300  
 TCTTTTCTAC TTGGAAAATG TTTTGGTGC AGCAGACAGT TTCACTTTTT NCTGTTGAGC 360  
 AGAGCAACCT TGTGTTCAAC ATTCAGCCAG GN 392

SEQ ID NO:3880

LENGTH:385

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04604

SEQUENCE DESCRIPTION:

GATCTCACCA CTGCACTCTA GCCTGGACGA CAGAGGGAGA CTGTCTCCAA AAAAAACAA 60  
 AGAAAGAAAG AAAAAACTGT AAAAAAAT TTNCTGCAAT GGNCTTAATA TGTGTGTCCT 120  
 TTAAAAATGT ATATATTGAA ACTCTAATCC CAATGTGATG TTATTTAGAG GTGGGGCCTG 180  
 TAGGAGGTAA CTGGGTCTTA AGGGTAGAGC CCTCATGANT GAGATTAGTG CCCTTATAAG 240  
 ANGCCCCAAA GCTAGCTACC TCTNTTCCA CTATGTAAGG NTACAAAGNG AAGTTGGCTG 300  
 TCTGCAAACT AGAAGAGGGC TGATACAGTT TGGCTGTGTC CCCACCCAAA TCTCATCTT 360  
 AGGTTTTTAA CTNCCGCAAT TCCCN 385

SEQ ID NO:3881

LENGTH:383

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04605

SEQUENCE DESCRIPTION:

```
GATCTTAAGG TAATTACAAA AGGGAAATTC CAAGAATGCA TAACACAATG ACAACATGGT 60
GAGAAAAGTG CAGTACTACT TCCAAGGTAG CTAGTGTAAG GGACACTTGA GTTTTAAAA 120
CTGTGGTTAA ATGTTTTATG TGGAATTTGA TGAGTTTGTA TATTAAATAC CACTGCTTGC 180
TGCTTTTACT AGAATCAAGT TAAGGGNCAC GTTAGAAATA GAACAGCTTA ATATCACTGG 240
CTTCAGAGCA AAATGAGCTC GGGTGACTGC AGATTATGAT GGTAATATG GCTTTAATTA 300
CAAACATGNG GNATGATTCA CTGAAGGTGA AAAGNTAGGG CGGNTGTGNT ATTGAAAAAA 360
AACCANCAT TTTGGCATT GAN 383
```

SEQ ID NO:3882

LENGTH:383

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04606

SEQUENCE DESCRIPTION:

```
GATCTATTTT TCAGTAATGA GTGTGTNCTC ATGCCTGTTT CAATATTGGG TTTGGAGCA 60
TTATTGTACC AGGCTGTGTA TTGCATACTG TAGAAGATTT GATGTTTANA CTGGTTCTTC 120
TTCATATACT ATGTTTNGTC TCAGTTNCTA TGCTATTGGA TGATACTTCA TTTGTTGTTT 180
TGGTGCTGAT GAAAAGGGNA ACCTGCTCTC CTCTATTTAG ACCTTGACAC TTATTACTGC 240
TCAGTTGTTN CTGGAGCTGA AGNAATGAAA NGTCTGGAAG GAACAGCTAT CAGATGTGGC 300
CATTGGGATT GTNACAAATG AGGAACCCTG TGTACTGGGA CAGTTGCCAN AATAATATAT 360
GTGGCCTNCT ATAATGTGCA TTN 383
```

SEQ ID NO:3883

LENGTH:380

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04607

SEQUENCE DESCRIPTION:

```
GATCTGAAGC CAGAAGGGCT GAGTGTATTG TNAACTTATT CTTGCATGTN GCTGTCTGGG 60
AATGGACCAC ACTACAGCAG GTAGTNCTGG GGGCGATACT GCCGAAAGNC CGANCACATG 120
TATTTTGGCT GCAATTGAGG NNCTTGGGAT GCTATTAATT TTGTATTTC GCAACTGCCC 180
CTTCTCCTAT CCCAAAGCAC CAATTACTNC CCTCTGCCTC AGNGGTACCA GTATAAGATG 240
ACATTCCAAA GACTGGAGGC AACTCAGCCT GAGTTAATTC ACAAAATTAT GCCATGCTGG 300
GGCTTGAGCT TGAGCTTGGG CTTAGGCTTG GGCTCAGCTT TTGACCCTCA GGCATCTCCT 360
TTNCCTNCT GTCTTCTTN 380
```

SEQ ID NO:3884

LENGTH:377

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04608

SEQUENCE DESCRIPTION:

GATCTGTTCA CAAGCTGGTG TTCAGGAACC AATGTGTGAC TGGTCCATGC CCACTTCTGA 60  
 TTATATGGAC TCAGAGACAA TGTACATGGG AGTGCTTTGC CAGTGGTAAA GTTCTACAA 120  
 ATGGGAGGTA ATTGCATGGC AGGTGTAAAG TTATTTGGAC CATTGAGGCC AGAAAAATG 180  
 TAGATTTAAA ATATACTGAT ACTGAAAGCA GANCTGTTG ANCTAATTGC TAATTTTAAG 240  
 GNATTCAGAC ATTCATCCAA AGGNTTTAGG CCAAATGTTG CCTAAATTGT TTCTCTATTG 300  
 CATATGAAAG TGATTTCNGC GGCTTAACNG TTCTCTNCTN TTTATGTGCA TGGCCATAGC 360  
 TGGTTGTNTT CACATGN 377

SEQ ID NO:3885

LENGTH:367

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04609

SEQUENCE DESCRIPTION:

GATCAAGGTG AAGCTCACAG TGTCAAGGCTT TCTGGGAGAG CTCACCTCCA GTGAAGTCGC 60  
 CACTGAGGTC CCATTCCGCC TCATGCACCC TCAGCCTGAG GACCCAGCTA AGGAAAGTTA 120  
 TCAGGATGCA AATTTAGTTT TTGAGGAGTT TGCTCGCCAT AATCTGAAAG ATGCAGGAGA 180  
 AGCTGAGGAG GGAAGAGAG ACAAGAATGA CATTGATGAG TGAAGATGTC GGCTCAGGAT 240  
 GCCGGAAT GACCTGTAGT TACCAAGTCA ACGGGCAAAG CCCCACAGTT TAGTCCTTTG 300  
 GAGTTATGCT GCGTATGAAA GGATGAGTCT TCTCCGAGA AATAAAGCTT GTTTGTTCTC 360  
 CCTGAAA 367

SEQ ID NO:3886

LENGTH:360

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04610

SEQUENCE DESCRIPTION:

GATCAAAGTA GCTTACTATA TCTAACTGT AAAACAATAT AGTTTCTCCT GAACACCTGC 60  
 TTTCTTCTG GGAGTCTGGA ATTTTGGTAT GTGCCAGGCA GAGACTACCT TTGTGACCAG 120  
 CTCCCAGTAA AAACCCAGG CACTCAGTCT CTAACAAGCT TTTCTGGTTG ACAGTGTTTC 180  
 ACAAGTGCTG TTACAAGTGG TTGCTGGGAG AATTAAGCTC ATCCTCTGTG ATTCCAAGTGG 240  
 CGGAGGATTC TTGGAAGCTT GCACTTAGTT TCCCCTNGAC TTCACCCCAT GTGTCTTTT 300  
 TCCTTTGCTG ATTTTGTTTT GTATCCTTTC ACTGTAATAA ATCATGGCCG TGAGCAGAAA 360

SEQ ID NO:3887

LENGTH:359

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04611

SEQUENCE DESCRIPTION:

GATCGCAAGT GACTGCTTCC GCTTCCAGGA CTGGGCCAGC TAGTGGGGGT GGCAGAGGTC 60

TCTTTGCTTC ATTCAGCCCT AGCTCTGTAG AGAAATGCAA ACCTCGACTC TCAAGGATGT 120  
 GAGGAACACA AGTTCATTTT TGTGTTGCG GAGACACTGC AGACTCCACT GTGCCGAGGT 180  
 TGAACCTTN NTTGTTGCTC AAGTTCTAGG AGTCCCTTTC CTGAATATAT ACTTGTTTGT 240  
 CATAGTTTCC TTNNCAAAGT AGTAAACTTT TCTATTNNTC TACTTGCCCA GTAGAGACTC 300  
 TTGATTCTGG AANATTCTNG NCAAAATAAT TTTAATAATA CACATGGTTG CTTCTTAAA 359

SEQ ID NO:3888

LENGTH:359

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04612

SEQUENCE DESCRIPTION:

GATCACTTGA GGCCAGGAGT TCAAGACCAG CCTGGGCAAC ATAGTGAGAA TGCATCTCTA 60  
 CAAAAAATAA AAAAAATTAG CTAGGCATAG TACCTGAGGC CAGGAGGTCC AGGCCGCAAT 120  
 GAGATGTGTT TGTGCCATTG CACACCAGTC TGGGTGACAG AGAAAGACCC TGTCTCANGG 180  
 GCANNTTAAA TAAATATCT TCATATATAA ATTAAGCTAA TTAAANTAT TTTTCCTGT 240  
 ATTTNTTAN TATTTTCTAA TCTGAACCCA TATNCAGCTG ACTANTTCAT TCTTAGAANT 300  
 GTGTTATCTG TAATCTNTCC TAAACAGTGT AGCCCAACAAG GNTCCATGGC ACTTTTAN 359

SEQ ID NO:3889

LENGTH:359

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04613

SEQUENCE DESCRIPTION:

GATCTAAAGG GGACACTGTA CTCAAGCTTT TNACCTCATG CCTTGTGTAG TAAAAAAGGA 60  
 TTTGGGGGTT TTGTTTGGTT CCTGAGAGGG TTGTGTTTTG TTTTGTTC CTTTGTTTA 120  
 TGTTTTGGCC TTTCCTCTTT GTCTTTCCAT GTAGACCAGA TATTGAAAG GGCAGACGAT 180  
 GGCTAGAGGT GTAATGTGCA GCTTGTATTAT ACGGTATTTT GGGAACTTA CCTTGGATGG 240  
 GAAATCGAAT CGTGGATTCA CCAGGCCGGT GCTGGCACAC TCACCCTCGC CCTTCCCTC 300  
 CGGTTTCAGTA CCTATTGTTT CTCCTTTCAA ATATGTGATT GTACTAGCTC TTTCCATAN 359

SEQ ID NO:3890

LENGTH:358

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04614

SEQUENCE DESCRIPTION:

GATCTGATGG GCTCTAACAG TGCTTACTTG CAGCCTTGTG TCCACCACCA ACTTCTCATC 60  
 ATGTTTCTCT CCGTTGGCCG TTGGGTTTCC AACTCTTCAA NCTTCAGGGT CTGGGNCAGG 120  
 GAGTGGGCCC ACCATTGTG GGGAAAGTAT CATTCCTCCA CCTCAGGCTT GGGTAGATT 180  
 GGAAAAANAC AAGGTNAGGA TACGCCTGTT TGAGCTTTGG GGNATGAACT TTGCTTTT 240  
 TATTANCTA NGGNTACTTT TATATGATGG GTGCTTTGAG TGTNATTNAG CAGGNTCTCT 300  
 TNGTTTCCCG AGGGNCCTGC TTTTGNAAGG TGACCNNGGT TACTTAAGCT AAGGNTTN 358

SEQ ID NO:3891

LENGTH:356

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04615

SEQUENCE DESCRIPTION:

GATCAACCCA CATTAGAGTG TCTAAGGACT CCTGAGAATT CCTGTTACAG TAAACAAAAC 60  
TAACGTAATC TACCATTTC TACACTATT GAGCATGGAA ATCATAGTCC CCACTCTGTG 120  
AAAACCTAAC GCTTTTTGGA AGACATTCT GTAGCATGTC AGTTTGAGA AATGNNTGNG 180  
CTACGCCTTG ATGAAAGAAC CGTGTGGTG CTGCTAAGTT TAGCCATTAT GGTTCNCCT 240  
NTCTCTCTCT TAAGCCTTAT TCTTCAACTA AAAGATGAGG ATTAAGAGCA AGANGTTGGG 300  
GGNGATGTG AAAATAATTN TATGNGGTTG TCTAAAATAA AGAGTAGTTT CTAAA 356

SEQ ID NO:3892

LENGTH:355

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04616

SEQUENCE DESCRIPTION:

GATCTACAAA TGTACGTTGT TACAGGGCTG CTCCTAAAG ATTTTTTTTA CTCAGGTTT 60  
CTCTTAATAT AGTTCTCCAG TCACTGACCT TGAATTGACT TACATAAATT ACTGCCAATG 120  
TTTAAATTGC CCTTATGTTT ATATTTATTA TGTCAAGCCA ATTCGTACAT ACAATTGGA 180  
ATCAAATGTC ATAAGAATTT ATTATATAAA TTTNTCAAGA ATAAAAATGC CTCTCCAGCC 240  
TTAAGTATTT ACATGCTCCC AGGTCATTGT CAGTTTATGG TATTATGTTG TTTTATTTAA 300  
AGCATTGAAT TGATAGAAAA AATTGCTCTG TAATAAAAAT CACTTTCAC ATAAA 355

SEQ ID NO:3893

LENGTH:351

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04617

SEQUENCE DESCRIPTION:

GATCTCATTC TTNTTATGGC TGCATAGTAT TCCATGGTGT CTATGTACCA CATTTNCTTN 60  
ATCCGGTCCA CCACTGGTGG CATTTAGGTT GATTCATGTC TTTGCTATTG TGAATGGTGC 120  
TGCGATAAAC ATGCATCCAT GTGCTTTAC AGCAGAACGA TTTATATTCC TTTGGGTATT 180  
TTTTTTGAGT ATAGTAATAG GNNNNNNGGG TGGAGTGGCA GTTCTGTTTT AAGTTCTCTG 240  
GGAAATCACC AAAGTCTTT CCACAGCAGA TGAAGTAGTT TAACTCCCA CCAGCAGTGT 300  
ATAAGTGTTT CCTTTCTCT GCAACCTCAC CAGCATCTGT TATTTTATA N 351

SEQ ID NO:3894

LENGTH:350

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04618

SEQUENCE DESCRIPTION:



GATCTTCTTG TAAGCACATC CAGAGTGAGA CTTTTCTATG TTTGAAAGAA GAATGTGTGT 60  
 ACATTTCAAG AATTGGGTT TTTGGAGGG AGGAGGAACT GTTACGTTT TTCCTCCACA 120  
 CGTTTGATTT TTGACACATA CACCCTAAT TCCTCAACAG CAGACCTCCT GCAGCCACCA 180  
 GGGGCCAGCT CTGTGTAGGA ACCAGATGGT CTTTTTCCAA GCNGCATCTT CAGCTGCCAG 240  
 CTAAACTCCA ACCCCAGNCA GGGAGGGGCA GGCTCAAGTC TTNCAGAATC ACACAGGGGC 300  
 AACACATGCA NNNNCCGGNA CCTGTNCTGT ACNGTCTNGG TTTNTTCNTN 350

SEQ ID NO:3895

LENGTH:348

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04619

SEQUENCE DESCRIPTION:

GATCCATAGG AGGGTAAAT GTCCGTTTC TTCATTAAAA CTCTCAGCT CAAATTTATA 60  
 CTAAAGCATA TCCAGGAATT AAAAAAAG GTTTTGATGA TATTTGCTTT CTAGTTTAAT 120  
 AAGTTTTAAT ACTGAATAGG TTAAATTAAT ACAAATAAC ATAAATGCT AATATTTATT 180  
 GAGTATTTAC TTGTGTACCC ACTACGNTT TAAGTAATTT ACTGGGATTA TTTATTTTA 240  
 GTTTAACAAT GCAGGTAGCT ACTATAATCG TCCNGGTTTT ACACTTGAGG AAACAGGCTA 300  
 AGAGAGATTA ANTTAGTGGC CCAAGGTCAG AAAGCTCGTA ATTCTTGN 348

SEQ ID NO:3896

LENGTH:347

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04620

SEQUENCE DESCRIPTION:

GATCCCAAAT ACTGCCATTG TGTGTCTAC TTATGAGTTA ATTGTGTACC TGTTAGAAGA 60  
 CCGTACTCAG TAACAGGCCG GAAAATTGTG CTCTAGAAGA ATAAACTGA AAAACTCTAG 120  
 AGAATTTTT TTCCCCATTG ATGTTTAGAA AGTTTGAGAC TGAAACAGGA AAGGCCATAA 180  
 AATATCTGGT TCATATCACC TGTTGGACAT TTCCTTTTGG ATTCATGCTT TCTGGAAGGT 240  
 TTAAATTCAT TAACGTAAAT AGTTAATTAT AACTNTTNT TTAACCTAAG AGGATTCAGG 300  
 GTTAAGCACC AACTAAATTA AATCATGCTA TTAAATTTAN GTATAAA 347

SEQ ID NO:3897

LENGTH:345

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04621

SEQUENCE DESCRIPTION:

GATCTAGAAT CTNTNCTNGG NTAAGCATAT AGGATGCCAC TTCTTGCTAC CTCCACAGCA 60  
 ATACATCACC TGGACAGCTT GCCACTCTTT GTTGCCTTGA ACTTCTCTGA TGTTAGGCA 120  
 GCCCATCTG GTACTGAGAA CACAGTGAAT GAGTACATC CTCCTGCTTT CTCTTCTAT 180  
 TATNACTTTT ACCTGATTC TTCTCAGGAG GAAGCTGTAC ATTTAACAG GACAGATAGG 240  
 AGGAAAAGCA ACTATTTTTC TGCCGAGATA ACAATTGACA ACTGGGGCA GTATGTGCAG 300  
 AGTTTTCTG GAGTTGTATT AAAAATTATC TGATAAGCTG CCAAA 345

SEQ ID NO:3898

LENGTH:342

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04623

SEQUENCE DESCRIPTION:

```
GATCAGTGTA CTGTTACCCG GACATACCTA TTCCTTCACA AGTTCTGGTT CTTCAGTGCT 60
GCTTACTATT TTGGTAACTG GGCCTTTCTT GGGGTATTTT TGATTGGATT AATTGTATCC 120
TGTTGTAAAG GGAAGAAATC GGTATTGAA GGAGTAGATG AAGATTCAGA CATAAGTGAT 180
GATGAGCCCT CTGTCTATTC TGCTTGACAG CCTTCTGTCT TAAAGGTTTT ATAATGCTGA 240
CTGAATATCT GTNATGCATT TTAAAGTAT TAAACTAACA TTAGGATTG CTAACNAGCT 300
TTCATCAAAA ATGGGAGCAT GGCTATAAGG CCAGCGATAT TN 342
```

SEQ ID NO:3899

LENGTH:410

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04624

SEQUENCE DESCRIPTION:

```
GATCTGGTGC CCTCTTCTC CTGGATTAC ATCCCCACCC AGGGCCCGCT TTTACTAAGT 60
GTTCTGCCCT AGATTGGTTC AAGGAGGTCA TCCAACTGAC TTTATCAAGT GGAATTGGGA 120
TATATTTGAT ATACTTCTGC CTAACAACAT GGAAAAGGGT TTTNTTTTCC CTGCAAGCTA 180
CATCCTACTG CTTTGAACCT CCAAGTATGT CTAGTCACCT TTTAAATGT AAACATTTTC 240
AGAAAAATGA GGATTGCCTT CCTTGTATGC GCTTTTACC TTGACTACCT GAATTGCAAG 300
GGNTTTTAT ATATTCAATA TGTTACAAAG TCAGCANCCT CTCCTGATTG GTTCAATNAT 360
TGAATGTGCT GGNAAATTNA AGGTCGGTTN NANTTTAAAN CAAGGNTNCN 410
```

SEQ ID NO:3900

LENGTH:338

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04625

SEQUENCE DESCRIPTION:

```
GATCAAGATA TAGAGCATCT CCATTTATAA AGTTCCTTCA TGCTCCTTCC CAGCCAGCAA 60
TTCTNCTTAC TGTCTGCTG ACTCCTGTTT TCACCTTCAT CACCATCAGC TCATTNGCT 120
TGTNCTTGAC TCATAAACAG AATCATATAG TAGGTGGTTC GTTCAATGTA GGCAGTCTGT 180
TTTNGCTTTA ATCATTACAT GAGTATACAT CCATATNGTG TGAAGCAGTA GTTCTTTNGC 240
ATTGCTGTGT AATATTCCAT TGTATAATTG TATAAATATA TGTGGTATAA ATGTAAGTAT 300
AGCACANTTG ATTCCTTATN GGGCCACTTG GTTTATTN 338
```

SEQ ID NO:3901

LENGTH:238

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04626

SEQUENCE DESCRIPTION:

GATCCACTGG TAAAGGGCAT CCCAGAGGNC AAAAAATCCCT TCAAGGAGCT CAAAGGAGGC 60  
 TGTGTGATTT CATAATACAA AAAAAAGAA AAAAAATTAN ACAAATCTT GGAAATATCT 120  
 CAAATGTAA TAACAATATG ANTTTTCTC ATGCATACTA TTACTACTAA GCATGTACGT 180  
 GANTTTTAA ATGTATAGAT GTAAACTTTT ANTAAANNTT GGGGTGTGGT AACCCAAA 238

SEQ ID NO:3902

LENGTH:331

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04627

SEQUENCE DESCRIPTION:

GATCTCTATA AGTTATTAAT TTAACCTGAA ACCAAAGTGG TCTCCATTTA AAGTTACTTA 60  
 ATCCCTTTGT ACCACCTATT TCTAGTAAA TATATGNGC TANNCAAATA GGTAAGTGC 120  
 TTCCTTGCCA TGATGGTAAT GGATTGGAAC TATGAAGGCT CTCAGTGTAT TGGCTTCTGT 180  
 AAAGATGAGG CGTCTCCTCA GAANCCCNAA CTTTTCACAT TTCTGCTTAC TAGACCTGGG 240  
 TTGATGTACA TGGTAAGTCT CAAACAGATG CAAGCTATGT GCAAAANGGA ACTTAGCCA 300  
 AATGGAAATA GCTGGATGCT TTGNGAATTG N 331

SEQ ID NO:3903

LENGTH:67

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04628

SEQUENCE DESCRIPTION:

GATCCAAACT GTGTTGTTCT TAAATCAAAA ATTGGNTAAT TTTTAATATN TATGTATTAA 60  
 TCACAAA 67

SEQ ID NO:3904

LENGTH:327

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04629

SEQUENCE DESCRIPTION:

GATCTGCCGG AGTCTTGAAA TTCAGCTGAT TGGAAAGTGGT TTCTTTGACT TTCAAGGTCA 60  
 TTCCCTATCA GTTACTACTA AGAGTTCTCT TACTGTCAGA ATCTCTCTTG CAGTACAGCT 120  
 CAAAATAGTG GATGCATTTT AACTTGACC ACCTTTTCCT ACCAGCTAGT TAGAAGTCAT 180  
 CAATATTTCT CTACATTTNG TTTATCTGTA AGTCCTTTAA ATCTATTTN GCTAGGCATT 240  
 CATTATGATT AATAGTAGAC TTTAAGACA ACATTTNTGT CACTCCCCAC CTCCTCATAT 300  
 TTNATAAAGG AGATATTTAC CTTGAAA 327

SEQ ID NO:3905

LENGTH:326

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04630

SEQUENCE DESCRIPTION:

GATCAAAGAC CAAAACATTT TCTTAAATAT ATTTTATGTA ATATTTTATT TGTATACAGT 60  
 GTTGTGTATG AAATATTTAA CTAGAGCATG ATATTTTAAA TGTAAAGGTG TAACATATGT 120  
 TAAATAAAAC TGTATTTTN GAATTTNAAA ATTNNGTTTT NGGGGGTATG ANCTACTAGA 180  
 GTTTAAATTT CTGCCAACT ATTACTTATA TGTNCTATTG TGTAACATAC TTNCTNGAAA 240  
 TATTTNGGTT TATAGAATTG ANGGTTCTTA TCAGATGGGA TACTGGGGAC TATAACAAT 300  
 GGAAATAAAG CCACTGTATT TNTAAA 326

SEQ ID NO:3906

LENGTH:325

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04631

SEQUENCE DESCRIPTION:

GATCTAATTA AGCTAAATTT TGGTGCACAG CAGGTTGTAC ATGATTCAT GTTTATGTAG 60  
 CAAAATGCAT TGAAATGTAT TAGTGTGAA ACATACATGT AAAGGTAGTT GTGGAAATTG 120  
 TTATATTNC CTGTGTGTC ATTTATTTAG AGCATAAAGG TTTTTTTTAT TCAGCCNNNC 180  
 TGAATAAGGC TAAATGAATA CTGTAATTGA AAATATATTT NAAATCTTTG TCATGAGTTT 240  
 TTTTAAAAA ANCTATTGCA AATTGTATCA TTCCTGATTA CACAGAACTT TGTGGGTGGT 300  
 TTTAANTAAN TNTNNTACTT CTAAA 325

SEQ ID NO:3907

LENGTH:324

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04632

SEQUENCE DESCRIPTION:

GATCTGCCCC GAGCTCTCCT CAGACCTCCC CAGACCTGTC TTCTCATCAG CCACCGCTGT 60  
 TTCTTTTGC CGAACGATGG TTGCATCTCT CGGACACAGT GTACCCCTC CCAAGCCCTC 120  
 CCTGAGCCGT TCTCCTGAGT CCCTGAGGGC AGACACAGCT CCAGGGACCC AGGCCGGCTG 180  
 CCACACCCNC GACACTNCTG NTGTCCACTG GCCTTAGCTC CTGCAAGTTC CCCAGTGTCC 240  
 GCACCTGTTC CNTTCCCTGA CCTTACCTTN CTGGGGTCTG TGAAGTACTG GAGATAAAN 300  
 TAAAAGCAAT TGTGACANCT GAAA 324

SEQ ID NO:3908

LENGTH:319

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04633

SEQUENCE DESCRIPTION:

GATCAAATAC CGAAATTGAA CTTTCTAAAA CCTACACATA GCATGCGTTT AAATTCTATT 60  
 ATATAAGCC CCAAGTGCTT TACCTTCTAA AACATGCTTC TCTATAGGTG CAAAGTTATA 120  
 AGATATGTAG AAGAAAACAT CCATCAGAAT CTNCTGGAGA NTATGGTCAG AGTCTTAAAC 180

AGGCCAGTG CTGAGTNCCT TGTCCACTTA GTCACACATC TTTGTGGGA ATGGGAAAGG 240  
 AAGGAGACAG CCAAACCTCTG ACAANGGCTT TTCCTTATAG ATTAACCCAA AGCCTAGGTG 300  
 AGGGTTGATA TATTAATGN 319

SEQ ID NO:3909

LENGTH:317

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04634

SEQUENCE DESCRIPTION:

GATCTGAGCA AAATGTGAAC TCAGTATGTT TACTATTGCT CTTACTTGAA AACTTTTTTT 60  
 CAAAAAAGC ACAAATTAAG GTAGTAAATT CATATCCATA GATAGTTCAT TCATTCAACA 120  
 AATATTTACC AAGTTCCTAA TATAAGTGAA GGNCCACTTC TCAGATTACT AAGTCATTTG 180  
 TATGAATATG TGTGGCAGTG AAGAGAACAG GTCTTTCAAA AAGCATTGA TTATCTTTAT 240  
 TTNTTTTAAA TACACTCTCT NATNTTNCTA CTTGTTTTTT TGTTAATCAT AGCAGGATAT 300  
 GACAACTCTT ATTTGAN 317

SEQ ID NO:3910

LENGTH:317

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04635

SEQUENCE DESCRIPTION:

GATCTACTCA GATGTCATNA TACTCCATAC CTGCTTTTCC CATGGCCGCC CTACGGAAAA 60  
 TCCCATCCAC AGAGGCCAGG GCTACCCAAG NCCCTCCAGG TGAGCTGGGC CTTTCCTTTA 120  
 TGAACCTCCA TCCTCCAGC CAGCTACAGT AGGGCCTCCT CACCCCGTAC CCCACAGCTA 180  
 GACAGTGTC GCACTCATCT CCTCCTCCCA CATTNTNGGA GCTTTTTTTT TCCTTCNCA 240  
 TTGACCTTTG TGGTCTCTG TGATTATTTA TGCTGCCTCC NAAGGATAGA ATTGAAATAA 300  
 AATGTTTTCA ACTTAA 317

SEQ ID NO:3911

LENGTH:316

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04636

SEQUENCE DESCRIPTION:

GATCAAAGGT TCTTCATTCA AAAAGAAGCA ATATCCTTTT GCCTGATATG GGGTGGGAAG 60  
 GGTAGGTGGC GATGATATTT CAAATGAATT AGAAACCACC TCCCATTTGA TGATAGCTGG 120  
 AGAAATGGAC TGACCTAGAA GTTACAGGAC CAGAACTAC AGTCACCACT AACCTTTCTA 180  
 CGTGGCACCC AGCCCCACTT GGAGACATTA TTTTCCATC AAACACAACC GTACTGCACA 240  
 GACATCTTCA CTGTCTGTTG CAAAGATTGG AATACGTAGA TTTCTGTTCA AAATTAAATA 300  
 ATATTTTAAA TACAAA 316

SEQ ID NO:3912

LENGTH:316

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04637

SEQUENCE DESCRIPTION:

```
GATCCACTGG TAAAGGGCAT CCCAGAGGAC AAAAATCCCT TCAAGGAGCT CAAAGGAGGC 60
TGTGTGATTT CATAATACAA AAAAAAGAA AAAAANTTAA ACAAATTCTT GGAAATATCT 120
CAAATGTAA TAACANTATG ATTTTNTC ATGCATACTA TTACTACTAA GCATGTACGT 180
GANTTTTAA ATGTATAGNT GTAACTTTT AATAAANTN GGGGTGTGGT AACCCNGNGG 240
GNCTATGTTT TNNTAACAT AGCTGGCACA GGGTTTAA CAATAATGCC ATAANTATTG 300
CTTAAGGTNC TTTAAA 316
```

SEQ ID NO:3913

LENGTH:313

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04638

SEQUENCE DESCRIPTION:

```
GATCCACCTG CCTGGCCTC CCAAAGTGCT GGGATTACAG GTGTGAGCCA CTGTGCCCGG 60
CCAAACCATT TTTGTTTAA TTCAATTCTA CATGGTCGTC AAACGTGCCT ATCCAATGAA 120
GCCTTCATAG AAGGCCAAG AAGACAGAGT TTGGGGAGCT TCTGGATAGC GGANATGTGG 180
AGGTTCCAGG AGGGCAGGGT GCCCAGGAAG GGCATGGAAG CTCCGTGTCC CTTCCCCATA 240
CCTTGCCCTA TGCATTTCTT CATCTGTATC TATTGTGATA TCCTTNACAA TTAACTGGT 300
AAACATANAT AAA 313
```

SEQ ID NO:3914

LENGTH:312

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04639

SEQUENCE DESCRIPTION:

```
GATCACCAGC TCACGTATG TTGCCTTCTC TTTCTTTGT GTGTGTGTTT ATTTAAGTNA 60
TTTTCTTCC TCCTCTCCCT TTTCTTTTG GCCCTCCCTC CCTCCCTCTN CTGCCATGTA 120
ACTGGAGGAT GTGCTATGAG TTGCAAACA GCTGGACTGT CAGGCTGCTT TTTTCCAGA 180
TGTTCTCCT CTGCCTCCCC TTCCCTCCT CTCCCTCCT TTTCTTCTT TCCTTCCTTT 240
CCTTGAGCA CTGAGCACCA TTTGGAAGCT TGAGAGAAAC CAAAATTAAG GAGAGAAAGA 300
GAGAGCGTGA AA 312
```

SEQ ID NO:3915

LENGTH:311

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04640

SEQUENCE DESCRIPTION:

```
GATCTAGAGG AAGTACAGCC ACCCACTGAC ATCTGANTTT ATATACCTNT TGAGTTTGA 60
GTGCACCCAA AACTCGATA AACCAGGTGA AGAAATTTAG CTTCCATGTT CTAATTCAGC 120
```

TAAAACAGCT ACATACAACC TAGTACCCTT GANGTCAGAC AGACATTTC A GTTGCTTACC 180  
 TCCAGTACTG AGCCTTGCTT TGGGAAACTA AAAGATTAG ACCAAGTCAC TGCCAGTTT 240  
 NGCCTTNGTN GCATTNGTA CAGTTTTTAT ATNTNGGATA TCTTGTAAT AAAGACAGCC 300  
 AGCTTTTCAA A 311

SEQ ID NO:3916

LENGTH:308

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04641

SEQUENCE DESCRIPTION:

GATCAAATCT AAAATAAGTA TAATGCATTG TAATCCAGA GATAAATCCT AGACCCTTCT 60  
 TGGCCTCCTT CTNACATAAT TCTAATCCTA CAGTCTCAGA GATGCTGTTG TATCCTGCCC 120  
 CCCAACCCCA TGATAGTNAT AGTGGTTTTT GCCTTGAAGG AATTGCTTTG TATTTAGCTT 180  
 TTCCCCCTCT AGATTTCTAG TTCCTTTTCA GTATTGGATT GGATTGAGA TTTGATTAAC 240  
 CTAGTACTCA GGTTCAGATG CTCGCCCTCT TGCAATTTA ACACTCATTG GACAATAAAG 300  
 TCAGTNGN 308

SEQ ID NO:3917

LENGTH:306

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04642

SEQUENCE DESCRIPTION:

GATCTAATGC ATCCTATATC CAGTAAGTAG AATTATCTCT TCATCTGGGA CCTGGAAATC 60  
 CTGAAATAAA AAAGGATAAT GCAATAAACA CAGTTGCAGG AAAGTATGTT AGCTATATAC 120  
 TATGAAGTAC TCTTAGTTA CTTATGTTGA ATGGCTTAGC TATTAATACT CAAATTGAGT 180  
 TAAAATGAAA ATTCCTCCTT AAAAAATCAA ACGTAATATG TATTACATT CATGGTACAT 240  
 TAGTAGTTCT TTGTATATTG AATAAATACT AAATCACCTA GGTGTCTATG TTCTATCACA 300  
 TCTAAA 306

SEQ ID NO:3918

LENGTH:306

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04643

SEQUENCE DESCRIPTION:

GATCAGCTGC AGCAGGNTGG GTCCCTCTGC ATCTGTCCAT CACTGCGACT GATGGCAATG 60  
 ACTGAGTATA ACACCTTTCT TCATGGTCAA CTCTACCCAG GAACCACGTA GGGAAGGAAA 120  
 TTCTGGAAAA CAGTCCCAG CCTTAGCCAA CTTGACATAT CATAATCCAA CAGANCTCAA 180  
 CCTTACCAA CTTGGAAATC ATGTACATT GTCAGGACTG TATTTAATTT CCACATAGAG 240  
 AGAAAGCAAA ATTATACTTT TGACCAAAT AATAGANTTA TCCATTAAAC ANACAAAAT 300  
 GTGAAA 306

SEQ ID NO:3919

LENGTH:306

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04644

SEQUENCE DESCRIPTION:

GATCCTCCCA GCTCTGTCTC CCAAAGTTCT GGGATTACAG GCATGAGCTA CTNTGCACAA 60  
GCTAAGAATA TGTGCTTTTA AATCCCATAA GGAAAAAAT ATTTTGGTA AATAAAATTA 120  
AAGCATAAAT ATCATGATT ACCTGACGTT TACCGTAAGC AACATAAAAG ATATGTGATA 180  
CTGAATGACT AAAANGTAGT TTTGGTTAAA GAGAGTTCTA GTTTCATGA GGNCTCTGAC 240  
AATGCTGCAT TTTATTTTNC TTTTAAATGT GCACATTGGT ACANGTTTAA CTACTCTACT 300  
CCTGTN 306

SEQ ID NO:3920

LENGTH:304

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04645

SEQUENCE DESCRIPTION:

GATCCTGTTA TGAAGAGCCC TAAAAAATAG GGTATAGAGT TTGGGCATAT TTCAGAGGTA 60  
ATAAGAAAGC ATTCTGCATT TTAAAGTAA GGTTTAAAAA TGTTTCTAAT TAGNGATACA 120  
GCAAAGTTGG TGTGAGAGGA TAAAGCTGAT ATACATAATC TGAGGAGTTC ATGAAAATTC 180  
ATGTAAANCT GTAGTATGAA TTGGCCTAGG NGCAGCAGCT NAGGGCATAG NGACTTTAAG 240  
ACTTTTCCAA GAGAGTGNAG GCTGGNGATA AATTGTGACT AAAATATATT TTGTGTTGN 300  
GAAA 304

SEQ ID NO:3921

LENGTH:301

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04646

SEQUENCE DESCRIPTION:

GATCAAGTAA TTCTTTCCT AGGTTGGGTT TGGGGAGGGG GGAAAAGAGG GGCTTTTCCT 60  
AGGAGAACGA TAAGAAATGG AAAGACTCCT TGAAGTGTG CAAGGGAACC TCCTAGCACT 120  
GTGAAAGTCA GAATCGCCTC AGCATTTCCT TGACGCACAT TATGCAAATC TNITTAGCAC 180  
TATTTTAAGT TTGAAAACCT TAACAATGAA GGGGAAGGGG AAGNTTTCCT CCAACTGANT 240  
CATTTGTGCA CGTGTATAGC TCAAAGNGCT TAGACTTCAA ATATATCTGG TGAATGACAA 300  
A 301

SEQ ID NO:3922

LENGTH:301

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04647

SEQUENCE DESCRIPTION:

GATCTGCCTG CCTCAGCCTC CCAAAGTGCT GAGATTAGAG ACGTAAGCCA CCATGCGTGG 60



CCAATAAGAC TGACTTTTAA TTTTCCTTTC TTGTAAGTT CTGTCTTGT TTTGGTATCA 120  
 AGGTTATATT AGCCTCATAA AAGGAGTTAA GAAGTGNTCG CTCTTTCTAT TTTCTGAAGG 180  
 AGTCTGCTAA GTATGAGAAC TCTCTATTTT ATGAATGATT GATAAACTC TCTTGGAAC 240  
 TGTCTAGACC TTATGGAAAT ATTTAGTAA TAGTTACAAA GCTATTCAAG TTGTCTGGTT 300  
 N 301

SEQ ID NO:3923

LENGTH:299

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04648

SEQUENCE DESCRIPTION:

GATCTCAGTT GGATAGTTGT ACCTCAAAAA AGTAGGTGAG AACTGGCTTC CTCATTGTCC 60  
 CAGGATGTCA AATACTAATG ACATAAGAGC TCACTTACGT GCCAAAATTC ACTTTTATAC 120  
 TAGTTTTTCA GTGCTTTAAT ATTTGTAACT NAAATTTNAA AACTCGTATT TACAAACACT 180  
 ACTGTAACNT CAGTGAACT GAATTGTGCG ATTGANGCTT TTTGCTTATC ATAGTATNTA 240  
 TTACACTACT TANTTCAGTA AATATATAAA NGTAGCCTNC AATTGANGTG TNTATTGAN 299

SEQ ID NO:3924

LENGTH:293

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04649

SEQUENCE DESCRIPTION:

GATCAGAAAG GTGAAATGTT TCGAATTTAA AATGTTTAAA GCATGTTTGG TTTTATTATT 60  
 TTTACATAAT TGTTTACCAC TAGTTTTTCC ACTAGCTTTT TATTATATAT GTTTAATTAT 120  
 GTAATTGTGA TTCCTAGCT TTTATTATAT AATTCCTTTT AAATAATACT ACTATTCATC 180  
 AACTCTTGTG GCATAAGAAT TGCAGTTTTT TCTACCAAAC TTTTACTTCA TCTATGAGTC 240  
 GTGTTAGAAA TAGTCATTGA AAAAATATAC AGTAAATAT CTAGCAAAAT AAA 293

SEQ ID NO:3925

LENGTH:293

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04650

SEQUENCE DESCRIPTION:

GATCTGGTGA AGGCCTNCTG GCAGCATCTT CTCAGTAAGA CCTCATGTGG CAGAAGGAAA 60  
 GGGAGCTATC TGGAATCTCC CTTATAAGGG CCCNNNGGCC ATTCATAAGG GCTGCACCCT 120  
 CATGACCTAA TCACCTTCCA AAGGCGTCAC CTCCTGGTAC TGTCACCTTG GCGGTTACGA 180  
 TTTTCATATA TGAATTTTGG GACGGCATAT TCAGTCCACA CCAGGAAGTT CTTGCACNTC 240  
 ATAGTCGAAA GTCAGTTTTG TGGCTATAAA AATCTTGGTT CCATTTTCCG CTN 293

SEQ ID NO:3926

LENGTH:292

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04651

SEQUENCE DESCRIPTION:

GATCCACCCG TCGTCGCCTC CCAAAGTGCT GGAATTACAG GCGTGACATG CATGCCCGGC 60  
 CAACATATAA TTATTATACA ACCCAGCCAC TGCACTCTTG GGCATTTATT CTAGAGAAAC 120  
 AAAAATTAT CCCCACTCAA AAGCATGTAC GTGAATGTTC TTAGCAGTTT ATTTTATAAT 180  
 GGTCAATATC TGGAAACAAT CCAAATGTCC TTCCATGAGT TAATGGTTAA AATAACTGTG 240  
 GTGCACCCAT ACCATGGAAT ACTGTTCAGC AATAAAATGG TATGAAATGA AA 292

SEQ ID NO:3927

LENGTH:291

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04652

SEQUENCE DESCRIPTION:

GATCCTATCT AAAAATATGT AGTTATTAAA CATTCTGTGG ATATTTGTNA ATAAGGTAGT 60  
 TNCTATGGTC CGAATATCTG GGCCTGCCCC CCCAAATNAT GCTGAAACCT AATCACCAGT 120  
 GTGATGGTAA TAGGAGGTGG GACTGAGCTC TGATGAATGA GATTAGTGCC CTTATAAATT 180  
 ATGACCAAAA GAGCTCTTCA CTCCTCCTAC CATTTGAGGA TACAGTGAGA AGCCTTCATC 240  
 TATGAACCAC AAAGTAGCCC TCATCAGACA CTGAATCAGC CAGTGCCTTG N 291

SEQ ID NO:3928

LENGTH:290

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04653

SEQUENCE DESCRIPTION:

GATCTCACAG AAGTTATTCA ATCTCTAGGT TGCTTTAGCA TCTACTTGTG TAGTGAGAAG 60  
 AGTTATTTAC TTATATTGTG CATGAGGCCG TTTAGATATG TTAAATGCAA AACAGAACTC 120  
 TTGCTAGCTA AACACAGTAG AACTTGAATT TTTTTTTTNA GAGGTTATTT AATANCAAAA 180  
 TCAGGTTATT TGTGACTTGG TTGAAGTAAA CGGTGTCTCA GATAAANTAA TTNGTTAAAA 240  
 GAGTTGCCCA NTTTATGTCT TATANCTTNA ANCAANTANN TANTAATAAN 290

SEQ ID NO:3929

LENGTH:287

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04654

SEQUENCE DESCRIPTION:

GATCTGGGAT GTGAGTGAT CAAATCTTAT CAAATCCATT GACAAATCAG TGGTGCTATA 60  
 CTGGAATGG CTACTCCTTT GGATGAAGGA CCTCATTTCC CAGTTGCTTG GAACAAANGA 120  
 GAATTTACAT NNNNCTGTAA GAAGGGAGAG ACGGCAGTTG TTGGTAGACA CACAGNNAAG 180  
 GGTGCCCAAG AATAATTCTG TCTGGATTAA AGGTCCAGG GAAGTGACGG NGCCATTTCT 240  
 GTACCAAGAG GTGAATATAA TTTGCATGTT NNGTGCAGT AATTAAA 287

SEQ ID NO:3930

LENGTH:290

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04655

SEQUENCE DESCRIPTION:

GATCCCAAGA TGAAGGGGT GGGAGGCTT GCTAGAATGG GAAGGGTCAT AGAAAGGGCC 60  
TTGACATCAG TTCCTTTGTG TGTACTCACT GAAGCCTGCN TTGGTCCAGA GCGGAGGCTG 120  
TGTGCCTGGG GGAGTTTTC TCTATACATC TCTCCCAAC CCTAGGTTCC CTGTTCTTCC 180  
TCCAGCTGCA CCAGAGCAAC CTCTCACTCC CCATGCCACG TTCCACAGTT GCCACCACCT 240  
CTGTGGCATT GAAATGAGCA CCTCCATTAA AGTCTGAATC AGTGCAGAAA 290

SEQ ID NO:3931

LENGTH:287

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04656

SEQUENCE DESCRIPTION:

GATCCTGAAG GGAAGGGGCA GGGATTCTC CTTCTTCTTG GTCCTGGCTC CCAAGGGCTT 60  
CTGTCTTCAT CTCTGCATGA GCTCTCCTTC CCAGAGACCA ACTCTTTTNN ATTNATTNN 120  
ATTNNATTTT TNAATTTATG TCTGGAGCCT GGCTACTCTG CATTGGGNT TGGGGATGCT 180  
GGGTGGGTGT GTGGTCCATG TTCAGCGTTC TAGCAACACG TGTGTGTGTG TGTGTGTA 240  
GGCTATGCAG CCAAAATACC ATCTGGCCAG ACGGGCCCAC CCACAAA 287

SEQ ID NO:3932

LENGTH:286

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04657

SEQUENCE DESCRIPTION:

GATCACCTGT TCCTACAGTG ACAACTGGAC CTGGCCCGAA CCCCTGGCÂT CTGGCAACAT 60  
TATTACCTGT CGAAACAGAA GTAGAGATTG GAAATAGAGG ATGCCAGTTC CCATTTCTC 120  
CTGCTGTCTG GAAGGAAGTC TGGCTTTCCA GCCCAACTCT AAGCTCATCT TTACATACAA 180  
AATAAGGGTA TGTTTACATG GAAAGCAAAA ATAGAACCAT GGATTTACAG AAGGTTCCAT 240  
AGCAGCAAAAT ANCAGTGCTT ATGAAATAAA CATTTTAAAT ATTAAA 286

SEQ ID NO:3933

LENGTH:283

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04658

SEQUENCE DESCRIPTION:

GATCTAATTG TGAAATCGTT CACCTTGTTA AACATCTAAG TAAGTCTGTA GTCGCTCTGC 60  
AAACAGCCAT TATATTTATT TACTCTAGAA GAACTGTAG AGTAGTAATT CGTGCTAATG 120  
AGAAAAACAA AATACCATGT TCAAAACAGA TGTATTTGAA AACTTAATGA CATGGTTCCA 180

AAACTAGAG CATGTATGTA TGCTGTGCAT CATCTCAGCA GACCTAAAAAT ATCCCCAAGT 240  
TGTCCCTTTA CAGCCATCAA TATATTTNAC ACTCTGCGGC AAA 283

SEQ ID NO:3934

LENGTH:283

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04659

SEQUENCE DESCRIPTION:

GATCTGAGTC CTAGGNCGC CCTCATTAC TAGCAGTAAG AATTTAAGTG GTGCATGGCA 60  
CATAGCACTG TACTAGATTC TGCAGGGGCA CAAACATAGA GCCAAACACT CTCCCTCTTG 120  
GAGAATTTCA GACCCAGAAA AGGCCACGCA GTTCTAACTT TTGTCATCGG TTCCTTTTGC 180  
TAAAAGGCAA AGGGTATGTT CTTGCCTAT TGTCCAACAT ACCCCTTCCA AGATTGTGAG 240  
AAGATGGGTA GCTGGGCATC ATTAAATATT GAATCAATTG AAA 283

SEQ ID NO:3935

LENGTH:281

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04660

SEQUENCE DESCRIPTION:

GATCCACAGC TTGCAGGAGA AAGTCAGTGG CCCCAGACAC ACGTAACAGG GTGAGCACTG 60  
AAATAAGAGC ACGCTGGGGC GTCCACACCA AGGGACTACG CCCCAGTCTG CCCACCTATC 120  
TTTTCTCCAT CATTAACCCA GCGCTCTTTC TCCCTGGACT TCCAAGTACC AATGACCTTG 180  
GGGCTTCTTT GCAGTTTAAA GGGAAAATGC TCTACAAANT AATTTCACTN TCAAACANNT 240  
CAGCAGAAGA ATAAAATNTT TTTTCTGGNA TATCTAGTAA A 281

SEQ ID NO:3936

LENGTH:280

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04661

SEQUENCE DESCRIPTION:

GATCCAATCA CATGGCAAAT GCCTCCTTTC ACAATAGAGC ATGGTGCTGT TTCCTCACTT 60  
GANCTGAAAC TTCATAGAAG ACCAGGTGAG ACCACAGAAT ACTAGATGNN AATGTTCATG 120  
TAGGTAAGCT TTATATTTCC TTCCAAGCTC CATTGCTACA AAGGTGTAAA TAAAATACAT 180  
TTTTATGAGT TGAAGTAACT TCATGGTAGA AAATAATAAC TCTGCCTTCA AAAGCAAATA 240  
ATGTTTCTTT TGTTAACCAA TAAAGCATAA GANAATGAAA 280

SEQ ID NO:3937

LENGTH:278

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04662

SEQUENCE DESCRIPTION:

GATCTTTAAA TTTTGTCCCT TAGTTAAGTT CTGTATTTAG TGAATTAATT GCATCCTAAA 60  
 AAGTCAAACCT TGAAAAGCAC ATTTTAAATG GCAAATCTAT TTTTACATG TTTGTGAAGT 120  
 TTTTATTTT TAGTAAACAG ACCATCAGAA GAGAACAATG GTACAGAGCA GGGGTCAGCA 180  
 GATGGATTTT GTANNGCATC AACTTGTAAG TATTTTCAAG TTTATTAGCT GTATGGCTCT 240  
 GGTTCCTGTT CCCTGTTCCA AATGTAAAG TCTACTGN 278

SEQ ID NO:3938

LENGTH:301

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04663

SEQUENCE DESCRIPTION:

GATCGACATT TAAAAATGA GGTGAAAGAA AGCTATAGTG GCATAGAAAA AGTATAAAGC 60  
 TCAGTTAGTT TTTTATTAT TATTATTATT AAAAGTTAAT TCAGGACTGA TGTGACCTAC 120  
 CAGATTTTCT AACATGTGTT AATAGTATAT ATGCCACTGA AACTTAGGT CCTGTATCAT 180  
 ACTTTTNNCT TTAAGACTTT TTAAGAAATA TTAAGTAAAC ATGTGGCTTG CTCAGTGTTC 240  
 AATTGCAAGT TTTCAATCTT GGACTTTGAA AACAGGATTA AACGTTAGTA TTCGTGTGAA 300  
 A 301

SEQ ID NO:3939

LENGTH:276

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04664

SEQUENCE DESCRIPTION:

GATCTCCCTT TTACAGATAT CAGAAAGCAT GAAAAAATA GAATTGGATT TAATGCTTTG 60  
 CAGATATTCT GTTTTTTTC CCAATTATTT GATTTACCT ATATACATAT TCTTTNNTCT 120  
 TTTTCCTAGC TTTAGAAGCA AACCAACAAA AGCAGTTTGG ACTTTAGTAA CTTTTTTTAA 180  
 CAGCAGCATT TAGAACAGTT TGCATGTTCT GAGGAATATT ATATGTGTGT TGGGGGGAAA 240  
 GGAATTCACA CTGAATAAAT TTTAGAAATA ATTAAA 276

SEQ ID NO:3940

LENGTH:277

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04665

SEQUENCE DESCRIPTION:

GATCTTACTG CAAAGGAAAC TGACAGAAGA AAAAGAAAGT GCTTTTGAAT TTNTTCCTC 60  
 TGCCTGACTA GACAATGATG TTAATAATG CTTCAAAGCT GAAGAATCTA AATGTCGTCT 120  
 TTGACTCAAG TACCAAATAA TAATAATGCT ATACTTAAAT TACTTGTGAA AAACAACACA 180  
 TTTTAAAGAT TACGTGCTTC TTGTACAGG TTTGTGAATG ACAGTTTATC GTCATGCTGT 240  
 TAGTGTGCAT TCTAAATAAA TATATATTCA AATGAAA 277

SEQ ID NO:3941

LENGTH:279

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04666

SEQUENCE DESCRIPTION:

GATCCTAAGC CATAGACAGG CTAATTGCCC ACCACTCCCA GGAATATTGA AATAGCTACA 60  
 TGACCATAAT GTGTTTAAAA TGTGGTATGC TCTTGAGATA TTAAAGTTT TGGCAGTAAA 120  
 ATACTCTGTT TTTAAGTAG AATGTATTC ATTCATATT CCTCTCACA AGGAAAATGA 180  
 CTTCAGTATA GATTTGTTT TATTAAGATG CATTTTTTAT TCTTAAGTGG TAGGAAGCAA 240  
 CATCCAAAAN TGCTTAATAA AATGCTTTTA AGCTGCAAA 279

SEQ ID NO:3942

LENGTH:273

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04667

SEQUENCE DESCRIPTION:

GATCAACTGG CTTTTCTCTA TTATGACTTT AGATGAATCG TTTAATAGA TTTGCTAATG 60  
 TTAAGACATC TCTGCATTTC TACAAGAATC TGATGTAGTC ATAGTATACT ATTCTTTTAA 120  
 TATACATCTC CTTTCAATGT TAACAGTGGT TATTTATGAT TGGTTGGTCC ATAGTAGATT 180  
 TTTATTTTGT GTTCTTATC TGNACTTCT GATTTTCCTA CAAAGATNNG NGNNNTACTT 240  
 GTATAATAAA AATAAGAGCT TTAAATNGTG AAA 273

SEQ ID NO:3943

LENGTH:268

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04668

SEQUENCE DESCRIPTION:

GATCGCGTCC AGATGGAAAA CGGAAGCAGA GGCTTCTAAT CGTCGCATTT ACTGGCTCCA 60  
 GTGCAACACA TCCATCTGAA AACACTCGGA AGTCTGGTGC TTGGAGAGGG TGCCATTGTC 120  
 TCTTGACAT AAGGTCATGA CGTGTCTATG TCAAAAGTTC TTATATATTT CTTTATAAG 180  
 CTGAAAGAAG GTCTATTTT ATGTTTTAG GTCTATGAAT GGAACGTTGT AAATGCTTGT 240  
 CAAACAATAA AAATAACGAA AAGTGAAA 268

SEQ ID NO:3944

LENGTH:268

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04669

SEQUENCE DESCRIPTION:

GATCTNGTGC CTGGAATAG CCTGAGGTGG CTCAGGAAGC GGAGAAAGGG TGCCAGACCA 60  
 TTCTCTGGCG GGGACCAGGG CCAAGGCC CAGGGCTGGA AGNAGACCA GGGCAGCCG 120  
 CCCTGGAGGG ACATCAGTGC TTCCTCTCC ACCCAATTCC CCCACGCGGT TCCATGTTT 180  
 CCCACCAGCC TGTGGCGAA GTTGCTGCTC CGGCATTGAG TACCTNNTNN NNCCAGAGAA 240  
 ATANNNGAG TTTCTATTT ATGTTAAA 268

SEQ ID NO:3945

LENGTH:267

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04670

SEQUENCE DESCRIPTION:

GATCAGATGG TTTAAGGCTA CAACACGAGG CCAATATCTG TATGTNAAGG AGACAGAAAC 60  
 ATCAATGTTT GGAGTATATA TTGACCTTCA TTCTTACTTT CTCCTTATTC TCTTATGTAA 120  
 CTGTTAATTT TTCCCTTCCT TGGCTCTATG TATTTAATTA TAATAAGCTT TACCTACAAG 180  
 CAAAACAAAC CAAACATGAA CAATGAAAAC TACTTTTGGT CATGTAGCAG AAACAGCAGT 240  
 CAATAAAGGA GAGAATGAAA CTAGAAA 267

SEQ ID NO:3946

LENGTH:266

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04671

SEQUENCE DESCRIPTION:

GATCCTGTGA AAGCTGATGC CCATGTGCCC TGAGAGCTGC CTCTCAATCC CTGTCCCAAG 60  
 CCACAGCTAT GGCCTTAATG TCACCAGTGT TCTCACCTC TAGGCCCTGT GCCTGGAGGT 120  
 GCCTCCACAG CCGACCAGCA GCCACCCCGC CTGCTTCATC CACATCAGGA GGGTCCGGTG 180  
 AGGCTGCAGC AGTGGTTAAG GAGTAACACC TTCTTGATT AAGGAATTTT AAATAAATA 240  
 AAATGTATGT TGGAGATACT GTTAAA 266

SEQ ID NO:3947

LENGTH:265

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04672

SEQUENCE DESCRIPTION:

GATCCCTAGG TCTTGGGAGC TCTTGGAGGT GTCTGTATCA GTGGATTTC CATCCCCTGT 60  
 GGGAAATTAG TAGGCTCATT TACTGTTTTA GGTCTAGCCT ATGTGGATTT TNNCCTAACA 120  
 TACCTAAGCA AACCCAGTGT CAGGATGGTA ATTCTNATTC TTTCGTNCAG TTAAGTTTTT 180  
 CCCTTCANCT GGGCACTGAA GGGNTATGTG AAACAATGTT NAACATTTTT GGTAGTCTTC 240  
 AACCAGGGGT TTTTTCGGTT TAACN 265

SEQ ID NO:3948

LENGTH:265

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04673

SEQUENCE DESCRIPTION:

GATCTAGNAA ATGCATATAT TTAGCGGGTA TTTGAAAGAT AGAAGCATT TTTATAACTG 60  
 AAGAGTATAA CACTTATCTN CTAAAGTAAA TGCTCTCATA ACTTGATAC ATTTTNCAG 120

GTACAAATTC AAAAGTATGT AAGCATTGTA TAATGTGACA ATTGTATAAT TTATGTAATC 180  
 TGATGCATGA NTCAGAATTT TTATATAATA TATGATTATN GACTTATAGT TGATTAAANGT 240  
 GTTTAANCTT AAAANANAAAN ANNNN 265

SEQ ID NO:3949

LENGTH:263

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04674

SEQUENCE DESCRIPTION:

GATCTCTAAA CTAGCTCTTT TGTTAGTATC GTCTCACAAA CTGATTATTT TCCTCTTTCT 60  
 TTGGTAAGGT CAATAACTGG GAGATGGACA AACTAGAGAT GGAAGATGCA GTCACATTTT 120  
 TGAAGACTAA AATCTATTCA GTAGAAGCTC TTCCTGTTGC TGCTGTAAAT GTGCAAAGCA 180  
 CACAATAAAG TGAAAATCAA CCTTTTCATA TTAGGAGACA TGCATTGTGA AAAATTAATA 240  
 AAGATGACAA GTCAGTTNTC AAA 263

SEQ ID NO:3950

LENGTH:261

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04675

SEQUENCE DESCRIPTION:

GATCCACACA CTACAGGAAA CAGTTGGCTT TGGAAATCCA TCTTTCTGAT ACCCCTCCAG 60  
 CTGAACAATT TTCTGCATGG GACTCTGAGT TCCTTTCCTT CCCAGAGAGT TTTACCGTAT 120  
 GAAGCCTGGA GCTGGAGAAC GAAAGAATCT TCACTATAAA CAGAGACCCA TTCATTTATT 180  
 TCCATTGGCT GTGTTACTGG ATGTTTACT GGTGACGAG AAAGTGGGTC ACAATAAAAA 240  
 AATGGAGATA TGAAGTCAA A 261

SEQ ID NO:3951

LENGTH:315

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04676

SEQUENCE DESCRIPTION:

GATCTGTTTG TAATACAAGG TATTTGGNCT TGTCTTTAAC TGTATAGTGA TTTGTGGGCA 60  
 GGCTGCAGGA GCCAGGATAA AGAATGCATG TTGAAATCT NCTCTATACA AATGCATCCA 120  
 CACTCTCCNG CAAAGGGATG AGTTTCTTAG CCGTTTTCAC TTGATACAAA TGCTATTGTT 180  
 TCCTTTGGAN GGNGTGAAAA ANTGNANGCT CCACCTGCTC CGTGAGTAGC ATTGCTCTCA 240  
 ACTGTTGTTT CCAGCCGTTT ACATGTCTAC CCATTCTCTC CCTTANGGTT TTCTTAGGGN 300  
 GCNGGNGGNT GNNTN 315

SEQ ID NO:3952

LENGTH:258

TYPE:nucleic acid

TOPOLOGY:linear



CLONE:HUMGS04677

## SEQUENCE DESCRIPTION:

GATCTAAACT TGATATGTTA AATTTAAATT TAATTTCCCC AAGTGTGAGT ACTATATGTN 60  
 ATTGTAGATA ATTTGCAAAC TACAAAAAAT AAAAATAATT GGCTGGGCGT GGTGGCTCAT 120  
 GCCTGTAATC CCGGGCGCTTT GGGAGGCCGA GGTNGGTGGA CCACCTGGGG TCAGGAGTTC 180  
 AGGACCGGCC TGGCCAACAT GGTGAAACCC GTCTCTGCTA AAGGTATAGA AGCTNGCCGG 240  
 GTGTGGTGGT GGGCACCN 258

SEQ ID NO:3953

LENGTH:258

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04678

## SEQUENCE DESCRIPTION:

GATCCTCACT CAACGAAAAC TCGNTTGGAA ACTGTTCCGN CTGGCAGTCC TTTTTGTTG 60  
 TTTTCCATCT CATTTCCCTT CCATCTGAAA GTGGCATTCA GCTGACTNGC TCATTTAGAC 120  
 NGTTCACGGA GTCTGAATCT GCCAACGTGG TGTGGAGGC TCCACCTGA AAAGGGCCAC 180  
 AGTCAGGGCA ACTTTCCCCA TACAGGAAAA CTTGAAAATT ACATCAACAG TCTACGTCAC 240  
 AGCCAAATTA TATTTCCN 258

SEQ ID NO:3954

LENGTH:257

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04679

## SEQUENCE DESCRIPTION:

GATCCAGTGG CTGCAGCTTC AATCCCAGTG CTGNANTCAC ACATCCATTC TGCCCTGGGG 60  
 GACCCTGGAG CCTACTTGTG CGCTTTGCAT TTCATTGATT GACGNCTCCC TTCAACAAGC 120  
 ATTTACTGNG CGCCTACTAT GTAATAATGC TAGANGTTAG ATGTACAAAG AAGACAGTTT 180  
 TCATCCTCTA GGNACTCATA GGCTAATGGT GAGACACACA GACANACATC ATTATATTAN 240  
 AATANGCTAA GNGAAAA 257

SEQ ID NO:3955

LENGTH:257

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04680

## SEQUENCE DESCRIPTION:

GATCTACAAG GCCACACAGA TAATTNCAA TACATCTCAT TTCCTTCTGA TTCAGGCCTC 60  
 GGNAGACCCC AAGGGGAAGG AGTTCTCATG GGNCACTATA ATCNATGAAG CTGAAGTTGN 120  
 AATATAGANG GCAGATTTAA AGTTACCATT TTTTTTAAA CACCAGCTAT GGTCTTTTCA 180  
 AAATTGTACA AGCTGTCAGT ATCACCTGCA CATGAGCAAT TTAGTCTNNN GGNGGNGTGA 240  
 GAAGTTTAGG TCTTTNN 257

SEQ ID NO:3956

LENGTH:256

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04681

SEQUENCE DESCRIPTION:

GATCTGCCCC CCTCGGCCTC CCAAAGTGCT GGGATTACAG GCGTGAGCAT GAGTGCCCAG 60  
GCAGAGAAGT CCTACACCAC GTGTCAAAC CGGAACACAA AGGGNCACTG TCTTATTGCT 120  
TGGTACAGTA CTCCTGTTTG TTGAGAGCCC ATTTACTAGA GCAGCTCTGT TTGTGCTTAA 180  
TGAAAGCTCT TTTCTGAGAG GCAACAGAGT GTGTTCTATC ATAAATGAAG CGCTCTTCAA 240  
GAACTTCCTG AGCAAA 256

SEQ ID NO:3957

LENGTH:254

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04682

SEQUENCE DESCRIPTION:

GATCCACCGT CGGATTCCGT CTGCAGAGGA GGACGTAGGG GGCCGTCACA CCCACCAGGC 60  
CTCCCTGCTG TGCTTTAACA CAGGCAGAAG AGGTTCATGG CAATATAATA GTCAATGAAC 120  
TTTCAGTTTA AATTGTGTAC ATTTTAAAT TGTAAGATTT TTAAGTGTATA TTGATGCATA 180  
GTGTGATTCA ATAAATTGCT TGTAAATTTAA AACTATTTA ATATTCAAAA TAAATATAGT 240  
TATATATTTA TAAA 254

SEQ ID NO:3958

LENGTH:252

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04683

SEQUENCE DESCRIPTION:

GATCTGTTTT AAAGTTGGGG GGTGGGAAAT TTAGCTGACT AGGGACAAAC ATGTAAACCT 60  
ATTTTCCTAT GAAAAAATT TTAAATGTCC CACTTGAATA ACGTAATTCT TCATAGTTTT 120  
TTTAATCTAT GGATAAATGG AAACCTAATT ATTTGTAATG AATTATTTAG ACAGTTCTAA 180  
GCCCTGTCTT CTGGGAGTTA TCANTNTTAA AGAGANCTTT TGTGCAATTT CAAATGAAGT 240  
TTTTATAAGT AN 252

SEQ ID NO:3959

LENGTH:251

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04684

SEQUENCE DESCRIPTION:

GATCCGGAGT CTTTGAGGCC ATNTTGAAC TACTAATTCA ACTAATCCTG AACCACCATA 60  
TTTTCATATT CATCCATGAA GTGTTAAGTG TTCTTATGAT TTAAACCACT TAGCATTGGT 120  
TTTTATATTT CTGACAGCCA AAATCTTCCT AACAGTAAAA TAAAGTTTCA AGTTTCATAA 180  
GTGCCAATGA TTTTAAATG TTAATAAATT TGTACTAAAT AAAAATGGCA ACAGGAGCAG 240

GTAAACCTAA A

251

SEQ ID NO:3960

LENGTH:251

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04685

SEQUENCE DESCRIPTION:

GATCTTCTAA CTTATAAATG TCAAATATAT TTTTGTTATTA GATTGTGCCT ATNATGAGAG 60  
AAATCTTTAA TGTATATTN ATGTATGCTG AACACATTTT TATAATTGN CACACTGGA 120  
GGCATGGTCT AGTAATAATA ATGTAATATG TACCTTGCTG GTTANTATAA CTAAGATTTT 180  
GCCTTTATTG GGTAGGTAT CTNTTNTTA TTNTGACC NGNTAGCTGN CTTCTACTGA 240  
GTAAAGANTT N 251

SEQ ID NO:3961

LENGTH:251

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04686

SEQUENCE DESCRIPTION:

GATCCAACCT CAAAGTAAAA GTTGAAAGG GCAAGAGTCT TTTAAGCGGA ACTTCAATTC 60  
TNTNNCATG GTTACTTATA TATAATGAAT ATAAATAGAC AAATAGGACT TGGAAAATGT 120  
GGTATATTCT AAGTCAAGAT GCTATGAAGT TGTTATAGTT TAAGGGNCAT TCTTAAGAAG 180  
GAATTACTTA AGTNCATTAC TCTNCTCATT TCAAGGACAT GAAAAAGTAA AGGATGGTCT 240  
GGCACTATTT N 251

SEQ ID NO:3962

LENGTH:250

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04687

SEQUENCE DESCRIPTION:

GATCCTGGAG ACGCCATTTT CGAGATTGTT CTGCATATTC ATTTGCACAT TGTTGTCTGG 60  
GTTGGACATG CGTGTGGGCT TCAGTGTGAG GCTTTTAATA TGTATATCCT GTTATCAATA 120  
AAACAATTAT CCAAGTGGTT GAATCCTGTG AGACTTGGCA AGTGTGTGCA AATNAAGTAT 180  
ACTTGACTTT TCAACCTCTT CTTTCAATGT NGCNNTTATA TGANATAAAG TAATCCATTT 240  
ANCAGTTAAA 250

SEQ ID NO:3963

LENGTH:245

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04688

SEQUENCE DESCRIPTION:

GATCGACATG AGATACAGAC GAGAGATTAT GTCTCTTATG GCTTTATCAT CAATTAACT 60

TAGCAAAGTC TGTAAATTT ATTTAGAGT CTCCCAGCTG TGAAAAGTAG AGTTCCACTT 120  
ATGTCATCCA TATCTGCACA GTAATCTTTT TTTTAATCCT AAACTTTCTT AACAGGTTTC 180  
TNCTCCTNAT TCTAGACAAT AATGCTATGT GTTTCCTTG AATACCATGA TTTTAAACTN 240  
TTAAA 245

SEQ ID NO:3964

LENGTH:245

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04689

SEQUENCE DESCRIPTION:

GATCGGTCAT GCTGGGGCCA AAAACATGGC AAGAAACGTC CCACTGTCAA CCTCCCGGGC 60  
AAGCGTGTGC ACCTGCAGCT CAGGGCCAGC CCACCACACT GCCTTAGTGA CACTGCAGCC 120  
GGGGGAGCCA CAGGCCGCCA GCAGGCTGAG GAACAATGCC GTGTGACCTT TCCNNCNNNN 180  
AAAAACAATA AACTGCAATT TTTATTCAAA TAAAAAAGG GTAAAAATAA AAGTTAATAA 240  
GAAAA 245

SEQ ID NO:3965

LENGTH:244

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04690

SEQUENCE DESCRIPTION:

GATCATGGAA AGTTTCAGTG AAAACCATCA TGCTGTCTTC CAGAACCACG TTCTCCTCTG 60  
AGGAGGATGA ATGAAGGTTG GGTTCAGTC ATCATGCCTG CCCTTTTTTT CTTTGTATTG 120  
TTCTTAAAGC ATCTCAGAGT CCTCTCATGG AATTTGGTTT CTATTTCCCC TCCCAATCTC 180  
CACCTCACTC CATATCATAA GACATGTCTG CATTCTGGAA TATTAAACGT GGACATGGCT 240  
CAAA 244

SEQ ID NO:3966

LENGTH:244

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04691

SEQUENCE DESCRIPTION:

GATCATGCTT TTCCCTACTA AACTTCTGTA ACTGCATGTA TGATACATTA TTGCAGAGGT 60  
AAGAGATAGT TTAATGGATT TTTAAAAACA AATTACTATA ATTNATCTGA TGTCTCTAG 120  
TTGCATTTTG CTGAAATGTA GTGCTGTTCT AAATTCTGTA AATTGATTGC TGTGAATTA 180  
TCTTTCTGTT GAGAAGAGTC TATTCATGCA TCCTGACCTT AATAAATACT ATGTTTCAGTT 240  
TAAA 244

SEQ ID NO:3967

LENGTH:242

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04692

## SEQUENCE DESCRIPTION:

GATCCAAGCC CTTGTTTCAGA TTTGGTGCCT GATAAGACAG GGGTTTCTCT TTTTGTGACC 60  
 TTTATTATTA TTATTTTGTT AACTGTTGTA ACCAGTTAGC TGTTGTGTTT TAAGATAGAA 120  
 AGGAACAAGA CTAAAATTGT AAATACTTG TAAACATCAG CATTGTACT TGAATAGTAG 180  
 GATTTTAAAG GGCATTGATA GCATACCAA CAAAAGGCAA AATAAAGTGA CCTTTTATA 240  
 AA 242

SEQ ID NO:3968

LENGTH:241

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04693

## SEQUENCE DESCRIPTION:

GATCTTCCTC CCATGAAAGA AAAANCAAGA ACCAGAGGCG TAGACTNACT NAAGACACAA 60  
 CTCCTGGCTT TCTNAAGCTA TGGACTTGGA TTGGATTGCT GGGGGTTTTT AGAGAAAGGT 120  
 GACAAATTC AGTACCTCTG GCATGCTGTC CCAGGAAACT AGGGCTCCCA CTAACCTATG 180  
 AGGTTTTTAA ACACATTGAA AATGACATGA CACCTAAAAT AAATTGGAT TTGCTCATAA 240  
 A 241

SEQ ID NO:3969

LENGTH:240

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04694

## SEQUENCE DESCRIPTION:

GATCAAGGT AAGAATAAGT ATCCACCTCT TTCCTTTTAA AAATTTTCCC TCAGAGTCCC 60  
 TATGTTGCAT ATTTNATTCT GTTCAGAATC TAACCTTTCC CTAAGGCTTA TCTTTCTAAC 120  
 AGATACTAAT TATGAATGGG CATCAACAAC TCTAATTAAC CCATTCTTTA AACTCCTCT 180  
 GGGTGTTTTC ACAAAGAAA TTCTCCCATG TTATGATGTG TGTGGTTGCT AAAAAGTAAA 240

SEQ ID NO:3970

LENGTH:238

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04695

## SEQUENCE DESCRIPTION:

GATCCAGACT GGCCAGATTT GAACTCCAGC ACTATTCCTT GATACCTCTG AACTTGGA 60  
 CAAGTAACTT AGTCACTATG TATGAAAAGA GATAATAATA CTAGTACCTT CCTCATACTA 120  
 CAAGACTACA AGATGTGGTC AAGACCAGAA ATATATAAGC ACTGTAAAAA CAATGTAAAA 180  
 CCAAATGNAA ATTCTTCATT TGTATCTNCC AAAAATAAAA AAATAGCTAT TTGGGAAA 238

SEQ ID NO:3971

LENGTH:238

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04696

SEQUENCE DESCRIPTION:

GATCAACCAG AAAAAAAAAA TATNATGAAA TGGATACACA CAGTGGACAC CTGTGAAGTT 60  
ATCTTAGCTC CCCCAAACT GAGANGTACA AATTAGTCTC CAAACCTAAT TACCAGTTTA 120  
CAGGAAACAT NGGGAATAAA AGANCAANTT AACAACACAA AGAAGCAAAC ANCCAANTGC 180  
ACAGTTTGGG AAATTCTGCA GAGGTAATGG CCTAGTTTTT TANCCAGTAC ATGTCAA 238

SEQ ID NO:3972

LENGTH:237

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04697

SEQUENCE DESCRIPTION:

GATCATAAAT GACAGGTGTG TGGAGGTCAT TGCAAAGGAA GGACAAAACC TGAAAGAGCT 60  
ATATTNGGTG TCCTGTAAAA TCACAGATTA TGGTAGGTAA TGANCCATTT NCCTAATCCT 120  
TTCTAAGANT AAAANGTTAC AAAATCATTG AAAGTNCTTA AAAGGAAATC AAGANCTATA 180  
TCATAGAGAC TGTCTATCGT CACTTATGCT CATNGTGACC NTACCAAANA NTAAAN 237

SEQ ID NO:3973

LENGTH:236

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04698

SEQUENCE DESCRIPTION:

GATCGTAGAA GCCAAATGAA ATGTGACATA TCTACTGACT GATGACAAGG GAATTCATT 60  
AGGAAGAAGG TAAAGAAACA TCGTTGAGTA GCCTACCTTG ATTTCTGTCA AGTTCATAAC 120  
CAGCTTCATN CTTTAAAGG CTTCAGGTTT GAAATTAAGT CAACTGCATG CAGCTTTGCT 180  
GATAAATGAA TAATTCTCTT TGATGCCATT TATGAGAAAA GACTTCAATA TCTGTN 236

SEQ ID NO:3974

LENGTH:173

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04699

SEQUENCE DESCRIPTION:

GATCTTCCAG TTTAGGAGCA ATTTGGTGAA AGGAGTCGGG TGACCAGAGC TGAATAACC 60  
GTCTGCATGG CTGCACTCTG GTANCAGAGT GGNGACAGAN GTAAGGATAG TGTGGAGGGC 120  
ACAGTTGCAA GTTGAGTCTT TCCATGAGAC AATGTGCCAA AGTAAAAAA AAN 173

SEQ ID NO:3975

LENGTH:234

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04700

SEQUENCE DESCRIPTION:

GATCCCTAAA TAAGTAGTTA TTCTGTTTTT CCTGATTTN AACTTTTACT AATAGAATGA 60  
GAGTAAATAT TTTGGGTAT GTGGCTTCTT TTGTTCAACA TTGTTTAAAG ATTCATCCGT 120  
GTTGCTTGTG TAGCTGTAAT TTGTTTTAAT CTTTATAGTA CATTCAGTTT TGTNAATGCT 180  
TATTGTAGGA CTGTACCATA ATACAGGCAG CATGCTGCTG ATAAACACTG GAAA 234

SEQ ID NO:3976

LENGTH:234

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04701

SEQUENCE DESCRIPTION:

GATCCTCCTG CCTCGGTCTC CCAAAGTNCT GGGATTGCAG GTCTTGGTCT TGATNCCAAG 60  
TTTGGGAAAG NAGCTAAGAA GACATCCCAC TAGGAAGAGA GAGACTACCT CCACATCAAA 120  
AATATTTAAG TNATTATCTC AAACAGTGAC ATCTCTGGG AAAATGGACT TAATAGGAAT 180  
ATGGGACTGA GTTCCAGTCT TTTTNAATAA AATAAAATCA AGCAANATCA TAAA 234

SEQ ID NO:3977

LENGTH:234

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04702

SEQUENCE DESCRIPTION:

GATCAACCCC GTGAAGGTGG CCAACCTGGT GAAGGCGTAC GTGGACAAGT ACAGGCACAT 60  
ANCNCAGGCA CANGAAACCA GAGGCCGGGG AGGAGCCGCC CACGCAGGGG GCCGAGGGCT 120  
GAGGCCAGGC AATCAGGGG TATGCCNGGG AGCTGTCGGG AGTGGCGGGA ATCGGGGCCA 180  
TGCCCGGGGA GCTGTCGGGA GTNGCGGGAA TNGGGGCCAT GCCCGGNGGA GCTN 234

SEQ ID NO:3978

LENGTH:231

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04703

SEQUENCE DESCRIPTION:

GATCATCGCA TTGAAATGGT TTTGGGAAGT ATGGAAAATT AAATGGATTT TTGAGACACT 60  
AGTTTATTGG CTATGCAAGT GACAGTTTGG AAAAAGGCTG AATCTTATTG TTGGAGCCTA 120  
ATGTAAATGC ATATATAAAT TCTGACTGTA TTTCAGTCAG TGTTCCTTGG GAAAAATTCC 180  
CAGATTGGAA GCAGAAAGTA CAGACCAAAT AAAGATTATT CACCCACCAA A 231

SEQ ID NO:3979

LENGTH:231

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04704

SEQUENCE DESCRIPTION:

GATCGCTCTC ACTGGCCTGC TGCAGATNAG CCAGGGGGAG CCTAGGCCCA GCTCCTCCGC 60  
GGTTGGCCCC CCAGACCATA CCTCTGACCC ACCCAGCCCC CNNTGGTAGC CCCAGCAGTT 120  
CTCAGGGTGC TGACCTCTCT CTCCACAGA CCCCAGACAC CCATTGTCCA TAGCCTTCTN 180  
AGGGCAGAGT GGGCTGGTTG TGTGACAAT AAAACAGTGT TGGTTTGCA A 231

SEQ ID NO:3980

LENGTH:242

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04705

SEQUENCE DESCRIPTION:

GATCAAGTCT TGTGAGTCG TGCCCTCTTT CCCCATGTTT CCTGGGAAGA CGGGTGGTGG 60  
CAGAGTGAGA AGGCCACTGG TTCTGTGCCG CAGCACGCAA AATTAGAAT TCTACAGACT 120  
AGCTCTATAC GTAGTGAGGA CCCAGATTTA GAGAACTGA CCAATATTTA TCTCCGCATT 180  
TGTGTGTGTG TCCAACCTCG TAGGNAATA AACCANCAAG ACAAATGAAC TGTGCTTCCA 240  
AA 242

SEQ ID NO:3981

LENGTH:230

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04706

SEQUENCE DESCRIPTION:

GATCCACCTC TACACCAGCC CAGGAAGCCC CATCTGTGCC TGCCCTCAGG TGGTCCACCA 60  
GTCTCCCCCT TTGGTTCCCT TCCAGTCTNT TCCCCCTTTC TATCCCAATN ACCAATAGAA 120  
ATGCTAACAT CCCTGCCTGG TAGCCAGACT AGCCCACTAA AGCTCCCCTG TAAATGGGGG 180  
CTCCATTAGT TCTGCTGCCG AGACTAATAA ACGATTGGT TGGCTCTAAA 230

SEQ ID NO:3982



LENGTH:229

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04707

SEQUENCE DESCRIPTION:

GATCTATTCC CACATGANGT GCGCCACCGA CACGNAGAAC GTCAAATTTT TTTTCGACGC 60  
TGTCACCGAC ATCATCATCA AGGAGAACCT CAAAGACTGT GGCCTCTTNT NAGGCAGGGC 120  
CTGTNCTGCA GTCGGGGACA AGGAGCTTCC NTTTGGCAAG GCCGGGGCAC AATTGCACT 180  
CCCCTCAGCT AGACGCACAG ACTCAGCAAT AAACCTTTGC ATCAGGAAA 229

SEQ ID NO:3983

LENGTH:226

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04708

SEQUENCE DESCRIPTION:

GATCCTCCCT GCCCAAGTCT TACTTCGTGA GCTGGCCTTG CTCCCCATCC CCCAAGTGCC 60  
TCACCAGTCC CCCAGACTGG GTGAAGGTAC AGCTGGCTCC TTTCGGGGGT GCAGCTTCAA 120  
CTCTCTCGGC GGTAGGGCGG TGCCATCCCC ACCCATAGGG CTGGCTCACA TCCAGTCACT 180  
CCCAACAGCG TCCANCACAC AAATAAAAGA CCCTTTGGCC CTGAAA 226

SEQ ID NO:3984

LENGTH:226

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04709

SEQUENCE DESCRIPTION:

GATCACTTGN GGTGAGNCGT NCGAGACCAN TCTGGTCAAC ATGGCAAAAC CCCGTCTCTG 60  
CTAAAAATGC AAAAATCAGC TGGGTGTAGT GGTGCGTNCC TGTAATCCCA GCTACTGGGA 120  
GCTGAGGCGA AAGAATTGCT TGAACCTGGA AGGTGGTAGG CTGCAGTNAG CCAGGATTGT 180  
GCCACTTCAC TCCAGCCCGG GCAACAGNGC AAGACTCTGT GTCAAA 226

SEQ ID NO:3985

LENGTH:225

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04710

SEQUENCE DESCRIPTION:

GATCCTGGGC CAAACTGATT TACTATTTTA AATTTNAGTT TTAATGNGAC AGGGCCTTGC 60  
TATGTTGCAG GGTGGTGTG AACTCCTGGC CTCAAGCAAT CCTCTGCCT CAGCTTGCCA 120  
AAATGCTGGC ATTACAGGCC TGAGCCACTG CCCCTGGTCT GATTACAAT TTTNAATTGA 180  
GGGTTAGGGA GTCATAATAC CANCAAAGAT GGTAAGGA ATTN 225

SEQ ID NO:3986

LENGTH:221

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04711

SEQUENCE DESCRIPTION:

GATCATCCTC TAAACATTTT ATCATTTTATT AATCCTCCCT GCCTGTGTCT ATTATTATAT 60  
TCATATCTCT ACGCTGCAAA ATTTGGGTCT CAATTTTAC TGTGCCTTG TTTTACTAG 120  
TGTCTGCTGT TGCAAAAAGA AGAAAACATT CTCTGCCTGA GTTTTAATTT TTGTCCAAAG 180  
TTAATTTTAA TCTATACAAT TAAAACCTTT TGCCTATCAA A 221

SEQ ID NO:3987

LENGTH:221

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04712

SEQUENCE DESCRIPTION:

GATCATCATC TGTGAAGCAT CATGGTAGCT TCCAAGCATT TCGGCCCCAC TGGCCAGNTG 60  
CATCAAAAC ACATTCAGGA AACCCGAGAG TTGTAAGTTG CACATGTGTG GCCTACAGTG 120  
ACTTCCATGT AGTAACAGGG NTGNGCAAGG CANGNTCTCC ACCAGACTTA AAGCATTCAA 180  
CCACTCTGCC CCCAGGGCGA CACTGGNCAT GTGGTTCAAT N 221

SEQ ID NO:3988

LENGTH:220

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04713

SEQUENCE DESCRIPTION:

GATCTTTTTA AGATNNNAAT AAAGAGCTTT CCTAAATAAA ATAAGCAATA TTAACTTTA 60  
GAAACTGTAC TCTATGAAAC GTGTTTTATG AAANCATCTN TTACAAAAG TGCTTACTTA 120  
ACTCAGCAAG AAAGGTTTAA TGTACACATT TNACANCTAA ANTCAAACC TACAAGAAAC 180  
TGCACTGCCT TCACTATTTA CAAATCGGCC TACAAGGAAA 220

SEQ ID NO:3989

LENGTH:218

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04714

SEQUENCE DESCRIPTION:

GATCTGGCTA TCTCATTGAT TATATTTTTC TTCCCTTATA CTGCAAAGTA CATCATAGGT 60  
ATAATTTTAT TTTGAGAAAG AACTATATTC CAATTTTACC TATATATTCC TACTGTAATA 120  
ACCAAGAGGA CATTTCAAAA ATGTATATGC TACTATTTTC AGAAGGNTAT AGATACTAAA 180  
TCTTTTTAAG CCTTATTAAA CTATGTTTAA TATTGAAA 218

SEQ ID NO:3990

LENGTH:217

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04715

SEQUENCE DESCRIPTION:

GATCTGTAA ATTGGATTTT ACATGTACAT TTGAATGCCA GAATTTCTAA ATAAATCCCC 60  
 TGGTTAGGAA ATTTAAAAG TCAAAGCTTG TTTCTTCAA CCACTACCTT CTACATTGGT 120  
 TGACTTAGAC CGTAAGCTTT TTAAGTTTCT CATTGTAATT TACCTTCTCA TGCAGATTGC 180  
 TGATGTTTTA TTAAACCTTA TTTTACAAA AATGAAA 217

SEQ ID NO:3991

LENGTH:281

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04716

SEQUENCE DESCRIPTION:

GATCTTATTA GACTCATACA TCTAATTATA GAAATACATA GACTTGATAG AATTTNATTT 60  
 TCAGGCNTGA AGAAATATTC TTTGGAAAAG CTAAATTTTT GGTGATTGAC ATAAAGATTT 120  
 ACTNGCTCAT ATTANCTNGG GGGGNTAGTA CTCTCCAAGA ATTAATGTGC CCTAAAAATT 180  
 TTCTCCAAA ANCTTATCCT TATCATGTGA TAATGANGAN CATTTGATTT CTTGAAAGGA 240  
 GACTGCTGTA GGCAGCATCT GGAATGCAA NTNNGGGGNN N 281

SEQ ID NO:3992

LENGTH:217

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04717

SEQUENCE DESCRIPTION:

GATCAGCCTG GGCAACATAG CCATAGTGAG ACACCAACTC TCTACAACAG CAAAACAAAA 60  
 CAAAACAAAA AACATGCAG CTGGGCATGG TGGTNACACC TGTGGTCCTA GCTACTCAGG 120  
 AGGCTGAGGT GGGAGGATTG CTGGAGCTAG GATGTCAAGN TTAGTGANCG TATTGACCA 180  
 CTNACTCAGC TGGNAACAGA NGAGACCTGT CTAGAAA 217

SEQ ID NO:3993

LENGTH:216

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04718

SEQUENCE DESCRIPTION:

GATCATTTTT TGAGGCAGGA GCATAACACC TTCTCTAGGA TTTGTCAGCT TCTAAAAAGA 60  
 GCCTTTTGTGTA AGGACTTGTA TGAGCTTGGG TTTCACCATC ATTACTGGGG AGGCACTAAG 120  
 ACTGCACATA TCTCTGGGTG AAGTAATGTC TACACANCAC CTTTCATAGC AATAGTTCCC 180  
 AGCTAGCATA CCTGCTTCTG CCAGTCCAGG GCCAAA 216

SEQ ID NO:3994

LENGTH:220

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04719

SEQUENCE DESCRIPTION:

GATCCAGACT ATAATCCTGC TGACCCAGAG AGTGACTCAG CTGACTAATG GACTGTCCCC 60  
ATCTGCAGAG AGGCTTGACT GCCACAGCAT CTGTGGCTAT GCTCAGAGGG TTATGATTTT 120  
CCTTTCTTTT NNNTAAGAAA AAATTATTTT CAGGAGAATA TTCTTCTGAT AGCTTTCATC 180  
ATTGAACTTA ATAAACTGAC CTTAAAATTT CAAATATAAA 220

SEQ ID NO:3995

LENGTH:215

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04720

SEQUENCE DESCRIPTION:

GATCTAAGGA AGAACTTGCT GCTGCAGTAT TGAAACTGTG AAGAACTGAC ATTTGAAGAA 60  
AAATAGATTA CCGTTGCGGG ACTAGAATGG GCGACTGCTT GGAGCCAGTG CTTGTTTTTA 120  
TCTAGGACAC TTACTGTCCT GTGAAGTAGA ATACATTTAT CTGCATTTAG TTTGTTAATG 180  
TCTGAAATGA ATAAAAAGAG GAAATTGCGA TTAAA 215

SEQ ID NO:3996

LENGTH:214

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04721

SEQUENCE DESCRIPTION:

GATCCAGAGA CAGAGGCAGC CTGTCTTTTC AGTTGGTTTC TGCTTTTAAT TTA CTGTGAC 60  
AATTCATTGT TACTGTTCTG TTTTTCCTAT TAATCTTTTG TCAACTTCCT GATTATGTAA 120  
CAAAGTATGT ACAGTCTACT TTTGACCTAT TTTTATCACA GTATNATTNA TTNCTTCTTT 180  
CAATAAAGTA CTNGNGCATA TTTCCACTGC CAAA 214

SEQ ID NO:3997

LENGTH:214

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04722

SEQUENCE DESCRIPTION:

GATCCGNAGT TCAAGGGAAG AGGAAGTTGC CTCTNAGCTC CATCTCTCTG CGCTGCTAGA 60  
CATGGTGGAC ATTTGAGCAG CCTGACCTGT GGGGAGGGGG TCTCTCCGA AGAGTTTCTG 120  
TTTTTACTCA AAATAATGTT ATTCTCAGAT GCTTGATGCA CTGTTGGAAA NGGGGATTAA 180  
TTTAATCATG CAGATAAACC ATTTAAATGT CAAA 214

SEQ ID NO:3998

LENGTH:212

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04723

SEQUENCE DESCRIPTION:

GATCGAAACC AGCCTGGTCA ACATGGTAAA AACTGTCCC TACTAAAAAT ACAGAAATNA 60  
GCCAGCAATA CAAAAATTGG CAGCTGTAGT CCCAACTACT TGGNAGGCTG AAGCACAAGA 120  
ATCGCTTGAN CCCAGGAGGT GGGAGGTTGC AGTGAGCTGA GATTGCGCCA CTGCACTCCA 180  
GCCTGGGCGA CAAAGCGAGA CTCTGTCTCA AA 212

SEQ ID NO:3999

LENGTH:211

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04724

SEQUENCE DESCRIPTION:

GATCTCAGNA ATTGGAAAAA TTGTCCTGTC TGTCACCTGT TTTGTTGCCT TAATAAGCAT 60  
CTGAATGTTT GGTGTGGGG CGGGTTCTGA AGCGATGAGA GAAATGCCCG TATTAGGAGG 120  
ATTACTTGAG CCCTGGAGGT CAAAGCTGAG GTGAGCCATG ATTACTCCAC TGCACTCCAG 180  
CCTGGGCAAC AGAGCCAGGC CCTGTATCAA A 211

SEQ ID NO:4000

LENGTH:210

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04725

SEQUENCE DESCRIPTION:

GATCAAGGCT ATGAACATCT TGTGAAGTAG GATGTTAAGT CTGCAAATAT CAGAGTGAAT 60  
CCAACTTAT CAATTCAACA CTGGATTGTA AAACAGCTCA AAAAAAGACT AAAAACACAG 120  
CTCTACACTT TAGGAGGTTG GGGCAGGCAG ATTGCTCGAG CTCAGGAGTG GGAGACAAGT 180  
TTAGGAAACA TGGAAAAACC CTGTCTCAAA 210

SEQ ID NO:4001

LENGTH:209

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04728

SEQUENCE DESCRIPTION:

GATCAGCATT CATACCATAG TAACTGATGT TGAAAACAGC ACAAATAAAC CAGAAGTTGA 60  
AAATGGCAAT AACATGCTAA AAATTTGCAA GTCAATTTGA NNACACTTGT CCAAATCTTG 120  
ATTTTTTTTC CTTCTCTATC GTTCCCCCCC CACCACCAGC TTTATGGAGG TATAATTAGC 180  
AAATAAAAAG TATACATATT TAAGGTAAA 209

SEQ ID NO:4002

LENGTH:209

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04729

## SEQUENCE DESCRIPTION:

GATCCTATGA ATTAATTCAG AAAGCAACTA AAATAACAAT GGCCTGCCAA ATGTCATTTT 60  
 GTAAATATAC GTCTATGACT TTAGGAGCTG TCCTGGTTTG AAAACATGAG GACAGTTTAT 120  
 CCATTGGATG CCATCTATNT AGTCCCAATT AAGAAAGTTG TTTTTTTGTG AGAATGACCA 180  
 AGGTAAATTT AAATATACCA TTCAAACAN 209

SEQ ID NO:4003

LENGTH:208

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04730

## SEQUENCE DESCRIPTION:

GATCGATGAA GCACTTTTTT ATTAATATTT TCCTTTGTGA AAGGAGGAAC CGTAACTCTC 60  
 CATAGCTGTA CATATAACCC TTTTCTCCTA AAGAGGAGTC AGTCAGTGCT CCTATATTTT 120  
 TCATTTTTTG TCAAAGCAAG AAGTAAATAC TTTAGAATTG TTAAATATAT AAATAAGCA 180  
 AATAAGTTG AGTGTTCAC ATGGTAAA 208

SEQ ID NO:4004

LENGTH:207

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04732

## SEQUENCE DESCRIPTION:

GATCTTTCCA CATACACTAC ATTGTATTGT TCAAAATTCA TAGAAATNAC TTGCAATATA 60  
 TTGATTTAAG CCTTATGTAG TGACTGTTGC TATATTTAAA GTAGCATTTT NAGTTTGCTG 120  
 TTTTCTCCTA CTGCTTAATC CTACAAAAC CAGCCATCTG CCTAAAAAT AAAAGAGCAA 180  
 AANTGNATCA GTGCAACCGG TATACGN 207

SEQ ID NO:4005

LENGTH:207

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04733

## SEQUENCE DESCRIPTION:

GATCCACATC TCAAAGAAGT GGGACTTCAC CAAGGTNCAA TGCTGATGAA TTTGAACNCA 60  
 TGGTGGCTGA AAAGGGGCTC ATCCANGAT GGCTGTGGGG CAAGTCATCC CAGTCGTGGC 120  
 CTATGGCAAG TNNNGGCCT NACTCATGAG GGCTTCAATG TGCTGCCCCC TCTTAATACT 180  
 CACCAATAAA TTCTACTTCT GTCCAAA 207

SEQ ID NO:4006

LENGTH:205

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04734

## SEQUENCE DESCRIPTION:

GATCTACATT ATTCAGCAGC CTCGAAAATG TTAAGCCTGG ATTTAAAACA CAGCCGTCTG 60  
 GCCAGCTGCC TCGAATATCT GACAGCTTAG CAAAAGGGC CANAGCTTTC CATAGGCGTG 120  
 CTGCACTTGC TTGGTAAATT AAGCAGCTTT TGTATCTTCC CCTTTGACTT TAGGTAATAA 180  
 AGCATCCAAA CTTGTAAATC TGAAT 205

SEQ ID NO:4007

LENGTH:204

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04735

SEQUENCE DESCRIPTION:

GATCTGGGAT AAAACCAGAC TGAAAGGAAT ACCTCAGAAG AGATGCTTCA TTGAGTGTTT 60  
 ATTAACCAC ACATGTATTT TGTATTTATT TTACATTAA ATTCCACAG CAAATAGAAA 120  
 ATAATTTATC ATACTTGAC AATTAAGTGA AGAATTGATA ATAAGTGAAT GTGAAACATC 180  
 AATAAGACC ACTTAATGCA CAAA 204

SEQ ID NO:4008

LENGTH:203

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04736

SEQUENCE DESCRIPTION:

GATCTNCTTT TTATCACTAT AGTTTGTATT CCTAGAATTG TATATAAATG GAATCCAACG 60  
 GGCACAGTGA CACATGCCTG TAGTTCACG TACTTGAGAG GCTGAGGTGG GAGGATTCCT 120  
 TCAGCCCACT TCAAGGCTGC AATGAGCTAT GACCACGCCT ATGCACTNCA GCCTGGGCAA 180  
 TATAACAAGA CCCTATATCT AAA 203

SEQ ID NO:4009

LENGTH:202

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04737

SEQUENCE DESCRIPTION:

GATCTGAAAA GAATTNTAT TTAAATTGGG TTGAGGGAGA GTAGATACAA TGAAACCTTA 60  
 AATTTAGCT TTNATTCTAA ACCCTTAAAT TTTTATGGG TTATGTTTTA CTTGGCAAAA 120  
 CTATCTGTGT TTCTNTCTTA GTGATATAGC ACCCTTAAAG TAAGTTGAGT GGTAAGGAA 180  
 ATAAAATACA CCAGTTTTC AA 202

SEQ ID NO:4010

LENGTH:201

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04738

SEQUENCE DESCRIPTION:

GATCCTCTTC CTGCTCCAGT TGCTGGCCGA CCACGTCCCT GGCCTTGGCC TGGTCACAAG 60

GCCGCTCATG GATTACTTGC CCACCTGGCA GAAAATCTAC TTCTACAGTT GGGGCTGACA 120  
 GACCTCCCGG AAGGAGGGTG TGGGGAGGGG TGGGGCAGGG AGCCCCTCTT CCCTAATAAA 180  
 ACTGACTCCG GCAGCGTCAA A 201

SEQ ID NO:4011

LENGTH:201

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04739

SEQUENCE DESCRIPTION:

GATCCTATTT GTACAAAAAA ATGTAAACT TAAAATTGCA CAAAATTGT NACCTGTACC 60  
 AGCTTTTAGA ACTGTTTATC TTATCCTCCT CAGTGATACA TCATGAAGTT GTGTGCTTTG 120  
 CCTAAAATGC CCAGTTACCT GAAATTGTAT AAATNCTTGC CAAAAGTGTT TGAACCTAAT 180  
 ACAAACTTCC CATCTCTTAA A 201

SEQ ID NO:4012

LENGTH:201

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04740

SEQUENCE DESCRIPTION:

GATCTCATTT TATTTAGCAT CAGCTCAAGA AACTNAAGTC TTAGTGACACA GTATCACAAC 60  
 AAAGAAAAAG CTTTGTTTT ATAAGTGGTA AAAACAAGAA AAGATTCTCA TCAAAATGAA 120  
 AATATAAAT TAATCATTTT TCACCAAAGA GTATGCCTGG GAGCCTCCAG CTGTAAAAAG 180  
 NCAATGCTAT TACTACTTCT N 201

SEQ ID NO:4013

LENGTH:200

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04741

SEQUENCE DESCRIPTION:

GATCCAAGTT GCCCTTGGGG TATAAACTT GACAGCAGAG GGCCTTCAGG GTCCCTCAGC 60  
 TGCAGTGTGA AGTGGGACAC ACAGGTGAGA CTCCATCTGC CCTGGGCAGG TTCCTGAGCC 120  
 TTNGGGGACC AGTTCACCCT ACATCCCAGG CTTCTGTTGT CCCTTGCCTG CCTGTAAGGA 180  
 ATAAAGTTGC TTTGCTTAA 200

SEQ ID NO:4014

LENGTH:200

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04742

SEQUENCE DESCRIPTION:

GATCTGACCT TTTCTTCAGA TACATAAGCA TTATTTTCTC TGTTTAGGTC CAAGGAAAAA 60  
 CAAAAGGTAA AGGNAATAAA GGGAAATATAC ATAAGGCAAA CATTTCTCTT TTTTTTTTGC 120



ATTATATCTT ACCAATTAAT TAAATTGTGG CCTTTGTTAT TATAAATGTA ATGATTCATT 180  
AAACTATATT ATGTAATAAA 200

SEQ ID NO:4015

LENGTH:200

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04743

SEQUENCE DESCRIPTION:

GATCCTATGA CTGACATCAA CTAAAATTTA AAAGAAGAGG AAGACTCAGT TGGGAAATTT 60  
TNCCATGAGG AAAATGTGCT TTGGTGCAAG GTACAAGGCC CACACCTCT CTGAGAGATA 120  
CTATGATTAA AAAAGCTTTA TATCTTGGGA TTTNCACAA CTGATAATGT GCAAAGNTAT 180  
AAACNGATTA ACTTGTCAAA 200

SEQ ID NO:4016

LENGTH:200

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04744

SEQUENCE DESCRIPTION:

GATCTTTCAA GAATGAACCA AGGNTTTTAA AAAGAATTAT AGGAAACACT TCATTCTTTA 60  
TAAACTTTC TATAATGCCT TATTTGAATG TTAATCTTAT GTGCTTTCTA AAAAATGTTG 120  
TGAAATACCA AACTTATGGA TTATCACTAG GTTATCAAGC ATATATNAGT CTTTATCAGA 180  
NTAAAATGAA ATTNCATAAA 200

SEQ ID NO:4017

LENGTH:199

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04745

SEQUENCE DESCRIPTION:

GATCTGAGAG GCAGTAAAGC AGTGATGAAG ACAGTGCAGC AGAACATTGA AGTCCTGATT 60  
GCAGCAGTGA CTCTGCAACC TTGGATAAAT TATTTTCANTC TTTATTTTGT AAAACGGAGA 120  
TAACGGCCTA TAGGATTNTN AAGACTGANT ATTTTAAAAG NGCTTAGAAT GGTGCCTGAC 180  
AAATGAGNNN CANTAAATN 199

SEQ ID NO:4018

LENGTH:199

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04746

SEQUENCE DESCRIPTION:

GATCATGTGA TTTCTATTTT TNCACACAG GGTAAGGGAC GAGTCTTCTG GAAGGCTCTG 60  
CCATGGACAT TTGCCTCGG GCTCAGAGGC CCCACCTGC CCCACACCTG CCCCTAATCA 120  
CTGCAGTGTC CAGCCCAGTG TTGAACAGAT TGTAGCGTTC TGTCTCATTG CGAGCAAATA 180

AATAGACTTT CATTGGA

199

SEQ ID NO:4019

LENGTH:198

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04747

SEQUENCE DESCRIPTION:

GATCACGCGG CATGTATTGA GGTGTGGCAT GCAGCATTTT GGAAGGAAAA TTGAAGACGT 60  
GTTCAAGAAA ACATGAACAG AAGCAAATNA TGAAAATGAG CATTITACTT GATGTTGATA 120  
ACATCACAAT AAATTATGGA GAAAAATACA TATTTGGCTA ACTTTTAATT GCTGANCAAT 180  
AAAGTGTITT CTTTTAAA 198

SEQ ID NO:4020

LENGTH:196

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04748

SEQUENCE DESCRIPTION:

GATCCCTACC GCCAGCTGCG AGAGAAGGAC CCCAAGTACA GTGCTCTCCG CCAGAATTC 60  
TTCCGCTACC ATGGGGCTGTC CTCTCTTTC AATCTGGGCT GCGTCCTGAG CAATGGGCTC 120  
TGTCTCNCCT GCCTTGCCCT GGAAATAAGG AGCCTCTAGC ATGGGCCCTG CATGCTAATA 180  
AATGCTTCTT CAGAAA 196

SEQ ID NO:4021

LENGTH:196

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04750

SEQUENCE DESCRIPTION:

GATCATGAAG AAGCAGGGCC TCTACCTACA AAAGTNAATC TTGCTCATTG TGAAATTTAA 60  
GCATTTTCTT TTTAAAAGAC AAGTGTAATA GACATCTAAA ATTCCACTCC TCATAGAGCT 120  
TTTAAAATGG TTTCATTGGA TATAGGCCTT AAGAAATCAC TATAAAATGC AAATAAAGTT 180  
ACTCAAATCT GTGAAA 196

SEQ ID NO:4022

LENGTH:195

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04751

SEQUENCE DESCRIPTION:

GATCTGGTTC CAGGGGAAAA AAATAGCTGG TTGGTGTCTA GCCCCCAAC ACTTTTGTCT 60  
GTTGTGTATA AAAGAAGAAA GACTGGCATG TACCTTCATT TGCTTAGCTA TTTGAGTATC 120  
TAGAGAAAAA TTAATATGCA ATGAGTTAGC AGTATACCCT GGCACACTTA ATAAATTTAA 180  
CATTTGTGGA GCAA 195

SEQ ID NO:4023

LENGTH:194

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04752

SEQUENCE DESCRIPTION:

GATCTAGAAG CTGGTAAAAA TGACAATATC AATCACATTA GGGGAACCAT TGTGTCTTC 60  
 ACTTAATCCA TTTAGCACTA TTTAAAATAA GCACACCAAG TTATATGACT AATATAACTT 120  
 GAAAATTTTT TATACTGAGG GGTGGTGAT AACTCTTGAG GATGTAATGC ATTANTAAAA 180  
 ATCAACTCAT CAAA 194

SEQ ID NO:4024

LENGTH:193

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04753

SEQUENCE DESCRIPTION:

GATCCAACAG CAACACCATT TTAAATTAT TGTGAAAAGA TTAAGTGGCA ATGTACAGAG 60  
 TTTACTCAA GCCCTTCTTA AGGGAAAACA CTACAAAAAG TCACAAGGAT ACCAAATGGA 120  
 AACACATGAT GATGCCTCTG GGTCTGTATG AGACCGTGAT GAAGTAGAAA TAAAGCCCTT 180  
 CTGAGATGGC AAA 193

SEQ ID NO:4025

LENGTH:191

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04754

SEQUENCE DESCRIPTION:

GATCCACGGT GGGCTCCAGC TGCCAAGNCA CCCAAGGGAG TCTGGGCCCT AGGCCTAGCC 60  
 CCATCCCTCC CCATGAGGGG CCAAGACACT GCCTAAGGTG TGGGAGGGAC TGGCTGAGAT 120  
 TGCAGCCCAT GGTAGGAGCT GGACCAACTG TATATAGTTT TCAATAAACT TTTTCCTTTT 180  
 CTGTTCTCAA A 191

SEQ ID NO:4026

LENGTH:264

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04755

SEQUENCE DESCRIPTION:

GATCCAGGAA GTTGGTGAAC CATCTAAAGA AGAGAAGGCT GTGGCCAAGT ATCTTCGATT 60  
 CAACTGTCCA ACAAGTCCA CCAATATNAT GGGTCACCGG GTTGATTATT TNATTGCTTC 120  
 AAAAGCAGTG GACTGTCTNT TGGATTCAAA GTGGGCAAAG GCCAAGAAAG GNGAGGAAGC 180  
 TTTATTTACA NCCAGGGAGT CTNTGGTTGA CTACTGCAAC CAGGCTTTTA AAGTAGCAGT 240  
 TTNTTTCACC GAGCCCTAAA GGTN 264

SEQ ID NO:4027

LENGTH:186

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04756

SEQUENCE DESCRIPTION:

GATCTTCACA TATTTTATAT GNATATATAT ATCAAGAAGT TATATATATA TAACTCAAGA 60  
AACTCAAGTT ATATATATAT GTCAAGAAAT GTATGATTAT TTTGGAGAGA ATGGGCCCAA 120  
ATGTGAAAAA GATATAAAAA AAACAAAAAA AACNNAAAAA AAACCNTNT TTNCCCCTNC 180  
GNANTN 186

SEQ ID NO:4028

LENGTH:150

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04757

SEQUENCE DESCRIPTION:

GATCTGGAAG TCACCCTCCT CTGGCCCACG GAAAATTTTG GTAATCTTCT AGGTTCTAAA 60  
ATGAAGATGT ATGGGTACTC TGGCAGACTG CATGTTGTAT AATTTGAAAA ATACTAAAAG 120  
TGGAAAATAA AATTGAATTA AACTTTGAAA 150

SEQ ID NO:4029

LENGTH:186

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04758

SEQUENCE DESCRIPTION:

GATCAACAAG TTCAAAACAC TGCTAAGTCT AAATCTAAAA CAGACCAAGA GTACCTTCAT 60  
TTAANTTTAG CTTGCACAGA GCTTGATGCC TATCCTNCAT TCTTNCAGA AGTAAAGATA 120  
ATTATGGCAC TTATGCCAAA NTTCAATTATT TAATAANGTT TTAATTGAGG TAACATTACT 180  
GATTTN 186

SEQ ID NO:4030

LENGTH:183

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04759

SEQUENCE DESCRIPTION:

GATCCAACAC AGAGACAATA GAAACATTGG GATTGAAGAG ATTCTTGGGA CTGTAAAAAT 60  
CCCAAGAATA TGGGATTGTA AAAAACCTGT CATCTTACTG CTATGATAGA TGAAGATTTT 120  
GCTTGCCTAT ACCTTGNGC TATTCCTCTC TTCCTTTCCT CCAAATATAC TTGTAGGTAT 180  
AAA 183

SEQ ID NO:4031

LENGTH:183

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04760

SEQUENCE DESCRIPTION:

GATCTAGCAT TTTAATTCT AGCATTGCTA TTCACCGGCT TCCTTATTTT ATATGTAAAA 60  
 ATTAAGATTT TATATTTAAT CTTCTTGTTT CTCATAGATA TTTTGTGAGC ATTTTNTTGT 120  
 TTATTTTGAA GAAATGTGGA TAAGATACTT GGTAGTATAA AACAGNCTCT CTGAGAGTAT 180  
 TTN 183

SEQ ID NO:4032

LENGTH:182

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04761

SEQUENCE DESCRIPTION:

GATCAAGGTC TGTATATTAT CCCAACTTT ATTAAGAATT GTTTCTAAT TNGTTATAAC 60  
 ATTTTNAAT TAATAGTTTC AAAACAAATT GTTAATACAA CTGTATAAAA TGAACATAAT 120  
 TTTCTCACT TGTATTTTGG TTATTGAGCA AGTTTATCAA AATAAATNGT CTAATAAAGA 180  
 AA 182

SEQ ID NO:4033

LENGTH:181

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04762

SEQUENCE DESCRIPTION:

GATCTCTTAT CAATTAGCAC TCACTAATGT ACTACTAATT GAGCAACCTA CGCACTCAGT 60  
 TGACTACGTA AATCTGTCAG GTCTTTTGTG ATTCCTCTG ATGCAGGAGA GGAAAAATTG 120  
 TAATTGATGA AAATAATGAA TGAAATCAA CAGATGAATA AATGGTTCTT TATAAGTGAA 180  
 A 181

SEQ ID NO:4034

LENGTH:180

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04763

SEQUENCE DESCRIPTION:

GATCTGGAGT CCCACGTTCC CCAAGGCCAG CGGGATGTGT GCCCCCTCCTC CTCCCAACTC 60  
 ATCTTTCAGG AACACGAGGA TTCTTGCTTT CTGGAAAAGT GTCCCAGCTT AGGGATAAGT 120  
 GTCTAGCACA GAATGGGGCA CACATTAGGT GCTTAATAAA TGCTGGATGG ATGCAGGAAA 180

SEQ ID NO:4035

LENGTH:180

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04764

SEQUENCE DESCRIPTION:

GATCCTGTTT GTACAAAGTC TTGCTTTTAT AAGGTTTCAA TAATATCTAA AACAACACAT 60  
TAAAAAGCTG AGACCATTTT ATGAAGATAA TTGTTTGTA TCATAGGTGT TGAAAGTAAA 120  
AAGGTGCCAT CTTGTGGTAT TGA CTGTGTAT TTATAACAAA TAACTGCTC AAGAGACAAA 180

SEQ ID NO:4036

LENGTH:180

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04765

SEQUENCE DESCRIPTION:

GATCCTGGTT ACAGCCATTT TGTGTGATTC ACTTCGGGGG TTAAGTAATG CAGGATTCTG 60  
CAACAAGGT GTCGCCGTCC AAATGTACTG TCCTGGCATA GAGAGCACTG CTTTGTTC 120  
CACTGTTGTA GAGAAACTA GGGAGAACTT TATTTTCAA TAACTTTTC TTGTGTGAAA 180

SEQ ID NO:4037

LENGTH:178

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04766

SEQUENCE DESCRIPTION:

GATCATGTAT AAAAAGAAAA AAAAGAAGTC ATGCTNTGTG GCCAATTATA ATTNTTNNCA 60  
AAGACTTTGT CACAAAACCTG TCTATATTAG ACATTTTGA GGGACCAGGA AATGTAAGAC 120  
ACCAAATCCT CCATCTNTNC AGTGTGCCTG ATGTCACCTN ATGATTTGCT GTTACTNN 178

SEQ ID NO:4038

LENGTH:177

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04767

SEQUENCE DESCRIPTION:

GATCAGGATT TGGGAAAATT GTGGTCAATA TTTGATTTTC CTTTCTGTT TGATAGCCTT 60  
ATCTAAATTC CCCTAGCTTG AATGTAGTAA ATATGAGTGT GTAAAAATGT GTATCTAATT 120  
CACCTCTTNG GGGAGGTTTA ATGTAACAT AAATAAAAT TCTTCCCA GGTAAA 177

SEQ ID NO:4039

LENGTH:175

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04768

SEQUENCE DESCRIPTION:

GATCTTACCT CCTAACCAAC TCCATACATC ATGACCAATG GCTCAGTCCA AGCNGTCATC 60  
TCTTGCTTGG TCACTGCAGG TACTTGCTAA CTTTCTTCCC AATAATCCAA CCCCCACAGA 120

GCAGCCAGAG TAGCCTTTT TTGTTTTGTT TTGTTTTGTT TTGTTTTGTT TTGTN 175

SEQ ID NO:4040

LENGTH:175

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04769

SEQUENCE DESCRIPTION:

GATCTTAATA GCTAAATAT GAAAAATATT TGGNAAGTCT GAAATNAGGT CTCCTGGCCC 60  
TGGTGTGCCC TTAATGCCTG TNACAGTTGG CCTCTGTGAA TATTGGTATA ATTNTAAATA 120  
ATGTCAAAC CCATTTNTA GCAAGTATTA ATAATTAAGG GAAGTATGC TGAAA 175

SEQ ID NO:4041

LENGTH:174

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04770

SEQUENCE DESCRIPTION:

GATCCTCAGG ATATGCAGGG CTCAAGAGAA ATGAAATATC TTGGGGATAT GGTACTTAA 60  
GACGTGATAC TGTCACAGTG AATTCACAG AAGATGGTGC TGCCCTAACT GAGGTTCAAT 120  
CCATGTATAA GCCAGACCAA TCTGAAGACA AATAAAGTAT TTCACAGCCA CAAA 174

SEQ ID NO:4042

LENGTH:171

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04771

SEQUENCE DESCRIPTION:

GATCTTCAAA CATTAACTTA AGCAGACCAA AAATTCTGAT GACCGCATCT AGATTATTTT 60  
TTTATAAAAA TGATTTTCAC TATAGCTATG TTACGCTAAG CTACTGTCCA ATCTCTTG 120  
ATGTGTAAC TTTACATGTG AATATTAAAG TAGATTTCTC TGTCTTGTA A 171

SEQ ID NO:4043

LENGTH:170

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04772

SEQUENCE DESCRIPTION:

GATCTTTAAA GATGTGCTAA ATGACTTTTT TGGCCAAAGG CTTAGTTGTG AAAAATATAA 60  
TTTTTAAATT ATACATTCAA GGTAGTGGCC AAATGTAACA CATCAATCAT GGAATGATTN 120  
CTCTGCTAAC AGCCGNCTGT ATGTTTCAAT NAATTTGTCC AAAGCTCAA 170

SEQ ID NO:4044

LENGTH:169

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04773

SEQUENCE DESCRIPTION:

GATCCTTCCC AGTGGACAGA TGAAGAATTA GGTATCCCTC CTGATGATGA AGACTGAAGN 60  
TGTAAGTCA GCCTCACTCT GTACAAGAGC CAGGTGAGAA TTTCAAGGAT TATCGACTTC 120  
ATATTGCACA TTAAAGTTAC AAATTAAAGT GGCTTGGTCA AGAATGAAA 169

SEQ ID NO:4045

LENGTH:169

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04774

SEQUENCE DESCRIPTION:

GATCTAGTGT GTAGTGAGCT CAGTATAGAG GACAGAGCTT TCATCATGTA AATTNATATG 60  
CAAAGCCAAA TNAACGTGG TGTGTACTTC CTAAGTATGC GTCAGGGTAT AGGCCTCTTT 120  
TTCTGCCATT CAAATAATGG AAGTTAATTA AATTTAAAC AAATGTAAA 169

SEQ ID NO:4046

LENGTH:169

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04775

SEQUENCE DESCRIPTION:

GATCCATACT GAAAAAATNC TGAGCCAGCC ATCTTTGGCA AAGNNCCCTG AGCTCTTGCT 60  
ATCTCTCAAG AGTGCTGAGA NCCACGGTGA AAGTNCCTGCT CTAGGCCCAC AAGTGTAAGT 120  
ATGCTGTAA CAGCTGTCAA TAGATAATTA AAATTCATAC TGTATGAAA 169

SEQ ID NO:4047

LENGTH:168

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04776

SEQUENCE DESCRIPTION:

GATCTCTGTT CTNGNTTGAA TGTATTTAAT TTCCAGCAGA ATGAGCCCCA TTCCTTATTT 60  
TGATTGGCCA TTTATCATGT ACATATGGTG AAATGCCTAT TCGTGACTTA GCCAATGTTG 120  
TTTCTTTTTC TTAAGTATTA CTACAGTACA TTTTATATG AAAGCAAA 168

SEQ ID NO:4048

LENGTH:212

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04777

SEQUENCE DESCRIPTION:

GATCTGCTGA AGCATCTGTC CAGCTGGTAT CCTGTGAAAG TTTGTAATTT NCTGAGTAGA 60  
CATTCTTATA GAGTATTGTC TTTAAATCA GATTGTCTCT NCTATATTGA AAGCATTNN 120



ATGTTTNCNA ATTTAAAAAT TAATATTTCC TTATAGATAT TGTGCAATAA AGCTGAAGTA 180  
GAATGTGTGG TTTTGC AAA TNCTTAGCG GN 212

SEQ ID NO:4049

LENGTH:167

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04778

SEQUENCE DESCRIPTION:

GATCTTGTCT CACAAAATAA ATTA AAAAGA TTTTAAATA GCAGGTTTCT AAAACAATGA 60  
GAAAGACAGC ATTACATATC AGTGTCTACA ATTTAAACAA AGCTATACTT AGAAGTAAAT 120  
TCATTGTCTT AACTGCTTTT GTTCCAATAA AACAAAATAG CAGGAAA 167

SEQ ID NO:4050

LENGTH:176

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04779

SEQUENCE DESCRIPTION:

GATCGTTACT ATGTGTCAAA GGGTTTGGAG AACATTGATT AAGGAAGCAT NTTCTGATT 60  
GATGAAAAAA ATAACTCAGT TATGGCCATC TACCCCTGCT AGAAGGTTAC AGTGTATTAT 120  
GTAGCATGCA ATGTGTTATG TAGTGCTTAA TAAAAATAAA ATGAAAAAAA TGCAAA 176

SEQ ID NO:4051

LENGTH:166

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04780

SEQUENCE DESCRIPTION:

GATCTATAAC TGTACTTTGC CTGGCGCTGT GCGAAGGTCA GAAAACTTAC TGCTAGTACC 60  
TAGAAACACA CAAGGCTGCC CAGCCAAATC TTAATGTAAA GTAGCTAGAG CCATGGAAGT 120  
ACAGTATGAA TAAAAAGAA AAANGTATTG ANCTTCAAT TCTAAA 166

SEQ ID NO:4052

LENGTH:163

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04781

SEQUENCE DESCRIPTION:

GATCTTGTA GTAGAAAGC TGTA ACTAAA AATTGTATTG TTGCTTATT AGCCATGTAT 60  
CTCTTAAAT TTTGTTATGT TTACAACGAT GTACCTTATT GGCAACAAGT TATTAGTTG 120  
ATGTTTAAAC ATAGTGCCTT TAGTAAATNA TTTTACAACT AAA 163

SEQ ID NO:4053

LENGTH:162

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04782

SEQUENCE DESCRIPTION:

GATCCAAAAG CTGGCTNTCT AACCACCAGC CAAGGGCTCT CTCACCACC AAGCCAACTC 60  
TCAGGGCAGC AGCAATGTGT ACCTTATTAA CCTCTGCACC CNAGGTCCTA GCACAGGGCT 120  
NGTCCATAAC AGGCGNCCAA TAAACATGTG TCATAATCTA AA 162

SEQ ID NO:4054

LENGTH:161

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04783

SEQUENCE DESCRIPTION:

GATCCCTGGT CCTGCCGACA CGCAGCTACT GAGAAGACCA AAAGAGGTGT GTGTNTGTCT 60  
ATGTGTGTGT TTCAGCACTT TGTAATAGC AAGAAGCTGT ACAGATTCTA GTTAATGTTG 120  
TGAATAACAT CAATTAATGT AACTAGTTAA TTACTATGAA A 161

SEQ ID NO:4055

LENGTH:159

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04784

SEQUENCE DESCRIPTION:

GATCGGCACC ACACCAGACA TAATCCTGGA CGACTTGCTG GAGACGGACC GCGTCACCGC 60  
CCACTTCTAG CCCCGTGGAT GCCGTCACCA CCAGCACACG GAACTACCTC CCACCCCTT 120  
TTTGACAAA ACACAAGGAA AAACATTTTT TGCTTGAAA 159

SEQ ID NO:4056

LENGTH:159

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04785

SEQUENCE DESCRIPTION:

GATCTAATTC TTTTGATAAA GTTCTAGCTC TAAAAGTGAT AGTGGGACTG TATGTTTTCT 60  
GATACTGGTG GCTTATGTTA TTAANCCTTT TTTAAAAAAG GTCCACTCTA AAGGCTGANN 120  
NCCACCCTAN GTTCCAGCC TCCTGGCCTC NACCNGGGN 159

SEQ ID NO:4057

LENGTH:158

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04786

SEQUENCE DESCRIPTION:

GATCTTGTGT TCTTTGTGCC AATATGAAAA GGAGAGGGTT GGTTCCTTCC TTTATTGTTG 60

AATGCTCCCA TTTAATGCTT TATGGCTTTT ACTGTATTAC TTTTGTAGAC TCCCGTCTGC 120  
 ACAAAATGCA ATAAAAATAA TTTTATTATA CCCTTAAA 158

SEQ ID NO:4058

LENGTH:158

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04787

SEQUENCE DESCRIPTION:

GATCACACTG GGGAAAAGTG ACAGAACCAA ATTTCAAACCT CCAGTCTTTC TGCTTCTAGA 60  
 GATTGAACTA CTAACATCTG CATTATATAA AATTAAGTNT CTCAAGGTAG TTTGTGAACG 120  
 TAACATACAA ATAAGTGATT AAAATTTTNG GTGATAAA 158

SEQ ID NO:4059

LENGTH:308

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04788

SEQUENCE DESCRIPTION:

GATCCCAAGT GATTAAAATA GGGTTTCTGA ATGGATGTTG AATGGCGTGG ACTCGCTACT 60  
 CCGTTCTTCA CAGCTGCCTT CCAGAATGTG TTCAAAGAA AGACAAGAAG GAGTGTATGG 120  
 CTTATAAAGT GAATCTAATA CAGTATTTGT TGCATTTAAA CAACTAGAC ATTTTCTTAC 180  
 GGAAAANTTA TGAAATACAG CATATTTNAT GTNCTCCCAT TGAATCAATC ATGACAATAT 240  
 TTCTGCTTTA ACACCATCTT TCATGATTAG NAATGTTTGT NATTGGAAAT GTTACACCAT 300  
 GTAAATAN 308

SEQ ID NO:4060

LENGTH:155

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04789

SEQUENCE DESCRIPTION:

GATCAGCCCC AGATTTGACG TGAATCAAA GACCTGAAA AATGGCAGAA TAATCTGCTT 60  
 CCATCCCGCC AGTTTGGTTT CATTGTACCT GACCACCCTC ACNCGCAANC ATGGACCCAT 120  
 GAAGNAGCAA NNCGGAAACN CACNAGAGGG AAAAN 155

SEQ ID NO:4061

LENGTH:155

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04790

SEQUENCE DESCRIPTION:

GATCTCATTG GTATGTTTTT TAATGTGTAG AATTAACACT TTAATAATAA CAGGTGTGAA 60  
 AATTATAAG GAATATATAT GACAATTATT TNCTGTACAT TAATGTCTAA ACATTATACT 120  
 TACTTTTCCA TAATAAAGGA AATTTTGGAA CAAA 155

SEQ ID NO:4062

LENGTH:155

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04791

SEQUENCE DESCRIPTION:

GATCTTAAAA CCAAGACAT TATATTGAA GGGGCACAGC AAACAGTGCA AGAAAATCTG 60  
CTGATGGAAG ATNATTTTNA TCAGTCCTCA GANCCAGAAA CTATAAACT GGGAAGGAAA 120  
GTTTAAATAA AGANTTTATT TCCAAATTCA GCAAA 155

SEQ ID NO:4063

LENGTH:153

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04792

SEQUENCE DESCRIPTION:

GATCTAAGNA GGATTCAACA CCTTTNTTG GTTGCTCAGT GTGTAATGAC TGAGATTTGT 60  
AAATCTTTGT GAACATTCTG TACTGGTCC CAAGAGCTAT TCATTCCCTG CTACCTGATT 120  
TCAGCACAAT AAATATACTT CTGCTGTGGG AAA 153

SEQ ID NO:4064

LENGTH:152

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04793

SEQUENCE DESCRIPTION:

GATCTTAGCT GTATGGAGTA ACTATTTTCAG AAAACCCTAT AAGAAGTTCA TTTTCTTTCA 60  
AAAGTAACAG TATATTATTT GTACAGTGTA GTATACAAAC CATTATGATT TATGCTACTT 120  
AAAAATATTA AAATAGAGTG GTCTGTGTGA AA 152

SEQ ID NO:4065

LENGTH:149

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04794

SEQUENCE DESCRIPTION:

GATCAGAGAA GGCTGAAGAA GGTGGAGAAA CTNAGGCACA AAAAGAGGGC AGTGAAGATG 60  
CGGGCAACCT CCCTGAAGCC CAGGAGAAGA ATGAAGAAGA AGGAGAGACA GCCACAGAAG 120  
AGACGGAAGA AATAGCCATG GAGGGTGCN 149

SEQ ID NO:4066

LENGTH:149

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04795

SEQUENCE DESCRIPTION:

GATCAACTAT GGGTTTATAT AAATNCCAAA TTTAGTACAA CAAATTTAGG TCATCAGGTG 60  
AATACAAGTA TTTTTTTTAA CAGGNAACAT TTTATTATAN NAAAAATATT AATGATAAAC 120  
GCATATTGGT TGAAAAATAT TTTTAAACN 149

SEQ ID NO:4067

LENGTH:148

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04796

SEQUENCE DESCRIPTION:

GATCTCTGTG ACCCATACCC TATTTNTACA CTCCTCCCC TTTGAAAAT CACTAATAAA 60  
AAATTTNCTG GTTTTATGGC TCAGGGGGCA TCACAGAACC TGCCAACATG TGATGTCTGC 120  
CCTGGACACC CAGCTTTAAA ATTTCAAA 148

SEQ ID NO:4068

LENGTH:147

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04797

SEQUENCE DESCRIPTION:

GATCATTTTC TTGGGACCTT GAACTGTGAA TGTTTTGTCC TAACCATTTA ATATTTTCTA 60  
GGTACTTGCT GCAAGTNCTT GAACTATTTT ACCAGCTTAA ACTTTGGGGC TCTAGNTTC 120  
TNTNCTCCAG ATTCTTGTTA TNNNATN 147

SEQ ID NO:4069

LENGTH:148

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04798

SEQUENCE DESCRIPTION:

GATCAGAGAA GCAGATATTG ATTGAGACGG ACAAGTCAAC TATGAAGAAT TCGNACAGAT 60  
GATGACTGCA AAATGGAAGA CCTACTTTCA ACTCCTTTTT CCCCCCTCTA GAAGAATCAA 120  
ATTGAATCTT TACTNACCT CTTGCAAA 148

SEQ ID NO:4070

LENGTH:149

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04799

SEQUENCE DESCRIPTION:

GATCTTTTAC AACTGGTGA CCCTGAGAGA GGAGGGAGGA GGGAACCTGG CGGGGGTGTC 60  
TGAGGCCGCA CTGTCAGCTG GCCGGTCCAA GCCTGTGGCT GGAGCTGGGG TCTGTTTACC 120  
TAATAAAGTC CCACAGGTGC CTCATTAAT 149

SEQ ID NO:4071

LENGTH:146

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04800

SEQUENCE DESCRIPTION:

GATCCCCTTC AAGTCTCTCT GACCTTTCTT CTGCCCTCCA GCCTGGGTGA CAGAGCTAGA 60  
GTCTGTCTCA AATAATAATA ATAATACAAT AAATAAATAA ATAAATAAAT AAATAAATAA 120  
ATAAATAAAG TACGCTTTCC ATTAAA 146

SEQ ID NO:4072

LENGTH:146

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04801

SEQUENCE DESCRIPTION:

GATCTCATAG AGCCCAGTTC TTAGAGTCAA CTAAAGAGTT GATAGGAATT TACTAGGTCC 60  
AGGGAGAAAA GGCAGTGGTT GGGGTACTG GAAATTTTGC TCATTTTCTC TAATGACTGT 120  
ATGAATAAAA GTGAACCTAC TTGAAA 146

SEQ ID NO:4073

LENGTH:146

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04802

SEQUENCE DESCRIPTION:

GATCTGAACT TACAGACAGT TGCCAAATTT CTCTAGATAA GAAAATAAAG AATAGAGGGA 60  
ACCTAACTGG ATAACAAAAA AAAAGGAGAG AGAAAAATGC CATTGCAGTT AAAGGTTATT 120  
AAATAAGCT TAGTGTCAAT GTCAAA 146

SEQ ID NO:4074

LENGTH:146

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04803

SEQUENCE DESCRIPTION:

GATCAGGAGG GACCACAAGG ACAGGAGAAT TAGCAACGAG AGACTGGCTG GCACCAGTNT 60  
TGGGAAAACT TCAGAGTGAG CTCCATTCAT GGTCTATTAA AAGGCCTTIN TTGTCATTCA 120  
GTGATATGTG NCTGGCCCCCT GAGAAA 146

SEQ ID NO:4075

LENGTH:144

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04804

SEQUENCE DESCRIPTION:

GATCAAAAAA TTATTTTAT TTATCCTAGC TTTACGTGCA TCTCACGGAA ACAGGATACA 60  
CGGTGTATAT ATTATNATGC AGTTCGTTGG AACTAGAATT TCAAAAAATT TTAATAAATA 120  
TGTTTAATCT GTTGCCTCTG GAAA 144

SEQ ID NO:4076

LENGTH:143

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04805

SEQUENCE DESCRIPTION:

GATCACTGGG CCTACCTGCA CTGTGGGGCC AAGCCCTGTC TTTTCCCAA GCCCTCAAGC 60  
ACACGCATGA ATGTCATCC CGACTTGGTA GGGGGCTTT CACCCTTACA AGATGGCAA 120  
AGATTCACAT TGCTTTTTTT AAA 143

SEQ ID NO:4077

LENGTH:143

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04806

SEQUENCE DESCRIPTION:

GATCTGTCAT NNTTTAGCAG TCAAGTGGGA TGGGCATTAT ATAAACAACG TTACAATGTA 60  
AGGAAAATCT NTAAGNGAT GGGGAGAGAA AAAGGCAGCT GGTATAATCG GTTACTGCTG 120  
CTTAGTTCTA CTTAATTTN NNN 143

SEQ ID NO:4078

LENGTH:142

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04808

SEQUENCE DESCRIPTION:

GATCTGCCTC TCAGGAAAAA GTACTAACTT GTTCTTTTGG TTCCTGGCTT TCATCAGTTT 60  
GTGAGATTTC TCTATTTTTT TTAAATATAA TTTTATTCTT TTCAACAAAT ATAAATATAA 120  
AAACAACTTT GGNNCANTGA AA 142

SEQ ID NO:4079

LENGTH:142

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04809

SEQUENCE DESCRIPTION:

GATCCTGGCT AACCTNGCC TATTTAGATT CCTTCCTCTC ACCTGGACCT TCCCATTTC 60  
ATCATGCAGA TGGTTTCTTT TTGTAAAGAG TTCCGTTTGC CTTCAATTT TTAGAGAAAA 120  
TAAAGACTGC ATTCATCTCA AA 142

SEQ ID NO:4080

LENGTH:141

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04810

SEQUENCE DESCRIPTION:

GATCTTCTTC TCTCTTGTC ACCTATTAAT TGTTTACAAT ATTTGTTACA TCTTATGCAA 60  
AATACTTGAN TGGGCCATGG TGCCTTTTTT CCTTGTNAGT ATTTAATTAA AAATGAATTG 120  
TTTGTCATTT GCAATGTAA A 141

SEQ ID NO:4081

LENGTH:140

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04811

SEQUENCE DESCRIPTION:

GATCCCGTTT TCCCCATGAC AATGTTGTAG TGTCCCCAC CCCCACCCC CAGGCCTTGG 60  
TGCCTCTTGT ATCCCTAGTG CTCCATAGTT TGGCATTGTC ACGGTTTCGA AGTCATTAAA 120  
CTGGTTAGAC GTGTCTCAA 140

SEQ ID NO:4082

LENGTH:138

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04812

SEQUENCE DESCRIPTION:

GATCTGTGCA GCAAACCACC ATGGCACAGG TTTATCTATG GAACAAACCT GCACATCCTG 60  
CACGTGTACC CCTGAAATTA AAGTAAAAAT TGGAATAAAA ACATTTAAAA AGAAAAGAAA 120  
ACAAACAACA ACAACAAA 138

SEQ ID NO:4083

LENGTH:138

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04813

SEQUENCE DESCRIPTION:

GATCTATCAA AGGAAAAGGA AACTGAGACC GAAAACCTAG GGTCTAAGTT GTTCTAAACC 60  
CAGGGTTCTC AAATGTGTTG TACAAAAAGT TTCATGTAAT AAAATTAAGC AAATAAACA 120  
AATGAATAGA GTTCCAAA 138

SEQ ID NO:4084

LENGTH:137

TYPE:nucleic acid

TOPOLOGY:linear



CLONE:HUMGS04814

SEQUENCE DESCRIPTION:

GATCACAATG TCATTTCCTA ATACAAGGCA GGATATGTGG GAAGAATATG TACAATTATT 60  
TGATTAAAAT TATTTCCAC TGACCTAAAC TTTCAGTGAT TTGTGGGAAA AATAAATAAA 120  
TGTCTACAC CAAGAAA 137

SEQ ID NO:4085

LENGTH:137

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04815

SEQUENCE DESCRIPTION:

GATCCACTGC CTCAGCCTCC CAAAGTGCTG GGATTATAGA CATTGATGAT GAATTCTTAT 60  
TTTANNNTA ATATAAGCA AATAAATTA TTGTTAGATA ACAATGCACA AAATAAAATT 120  
CAAGGGTGAA AAATAAA 137

SEQ ID NO:4086

LENGTH:136

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04816

SEQUENCE DESCRIPTION:

GATCCATGCC TGTAAGTCAA GCTACTCAGG AGTCCGAGGC ACAAGAATTG CTTGAACCTG 60  
GGAGGCAGAG GTCACAGTGA ACCATGTTCT GTCAGTGCAC TACATCCTGG GTGACAGAGC 120  
GAGACTCCAT CTCAA 136

SEQ ID NO:4087

LENGTH:136

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04817

SEQUENCE DESCRIPTION:

GATCTGGTCC CTGTAGCACA GAGGTCCGAA GAACCGCCTT CAGAAAGAGG AGGCATATTT 60  
GGAAGTNATG GGAAAGACTT TNTGGACAAG GATGGAGAAC ACTTTGGAAA ATTGCATTGT 120  
GCCAAGAGAC AACAAN 136

SEQ ID NO:4088

LENGTH:135

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04818

SEQUENCE DESCRIPTION:

GATCTACAAC ACCTGCCAGT GACCCCTGCC CAAGGCCTAC CCCAGTTCCT AGCACTGCCC 60  
CACATGCATG TCTGCCTATG CACTGAAGAG CTCTGGCCC GGCAGGCCAC CAATAAACCA 120  
GTGTGAACCC CCAA 135

SEQ ID NO:4089

LENGTH:133

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04819

SEQUENCE DESCRIPTION:

GATCTGCTGA CAGTGAGTAG TATTTTGTT TAGGATGTTG TGAATTAGCA AAAATAATAC 60  
AGATGTCTTC CCCCCTTTTG TAGCTTTGAC AATTTGAATT AGATTTCAAA TAAAATCTGA 120  
ACAGAAACT AAA 133

SEQ ID NO:4090

LENGTH:132

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04820

SEQUENCE DESCRIPTION:

GATCCTTACA TATGCCATCC TTCTGTGTCA TTTGTGGCT GTTCTGTGT TTTCTTCCTA 60  
GTTATTTATT ATTGTTAATA ACTTACTTTT TCTTACATTC TGTGTAAAT AAAATACAAA 120  
GCAATCTTCA AA 132

SEQ ID NO:4091

LENGTH:132

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04821

SEQUENCE DESCRIPTION:

GATCAAACAG AGGCATGCTA AGATATATTG GGGCTTGAAG CAAAGGGAAA ACTATTTGTT 60  
GCTATATGTT TGTAGGGATT TTTTGCCAGT TTAAAAATA CATGTATCAT AAAGTTTACT 120  
ATCTCAGCCA AA 132

SEQ ID NO:4092

LENGTH:132

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04822

SEQUENCE DESCRIPTION:

GATCAGTGGG GGAGGGCACC TCAGCAACCT CTGAGTGTGG ACAATAGCTG CTTTCTTCTC 60  
TATCCAAGAG CACCAGGCTG TGCTTGGNTC CTTGCTCTCA GAGTCTATAA ATAAAAGAAT 120  
ATAATGATTA AA 132

SEQ ID NO:4093

LENGTH:130

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04823

SEQUENCE DESCRIPTION:

GATCGGGGGT GGGATGGGAT GGAGTGAGCC CCATCCAGTT AGTTGGACTA GTTTTAAATA 60  
AAGGTTTCC GGTGTGTGT TTTTGAACC ATACTGTTA GTAAAATAA TACAATGAAT 120  
GTTGAGTAAA 130

SEQ ID NO:4094

LENGTH:128

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04824

SEQUENCE DESCRIPTION:

GATCACAGAG GGAGGAGCTC TGAGAACAGT CTCCTTCAAC AGCTCGGCCA AGCAGAACTG 60  
CTGTACCTCT GACCACTTGT GTTAGGAAAA CTATCGGCTC CCTGTATAAT AAATCAAGCC 120  
AGGTCAAA 128

SEQ ID NO:4095

LENGTH:126

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04826

SEQUENCE DESCRIPTION:

GATCTTTGCC TNTAAGCTTG AATATTTGGC TTAAANTTTG TNCATATGAA TACTGTAAAA 60  
GGTATATTTN ACTACATTTT GAAAGGAAAA AGGTAGTCCT GCTAAAATTG ACATTTAGGG 120  
ATANN 126

SEQ ID NO:4096

LENGTH:124

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04827

SEQUENCE DESCRIPTION:

GATCTGAAAT TCTGAGATAT CAATCTAGGA ATTTCAAAAG AAACAGATTA TAGAATTAA 60  
AACTTAACAC CNGTCTTGTA TTAAGAGAAG TCAACATTTT AAATAAAACC TTGTTCTTAC 120  
CAAA 124

SEQ ID NO:4097

LENGTH:123

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04828

SEQUENCE DESCRIPTION:

GATCTCAGAA CTGTGCCAAG CAGACACTGG GACAAAGGGA GAATATCTTG CTCCCCTCCT 60  
GAGTCAGCCT GGTGTTGCC TTTATTCCCC TTATGTGCAT ATGATTAAAG AGTTATTTT 120  
AAA 123

SEQ ID NO:4098

LENGTH:122

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04829

SEQUENCE DESCRIPTION:

GATCCTACAA ACAGACATTT TCCACTCGTG TTTCCATAGT TGTAAAGTGT ATCAGATGTG 60  
TTGGGCATGT GAATCTCCAA GTGCCTGTNT AATAAATAAA GTATCTTTAT TTCATTATA 120  
AA 122

SEQ ID NO:4099

LENGTH:121

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04830

SEQUENCE DESCRIPTION:

GATCTTCTCG CCTCAGCCTC CTGAGTAGCT GGAGCTACAG GTGTGAGCTA CCCAGCATGG 60  
CTCATTTGAG ATTTCTGAGT AGAGAAGTAA CATGATTAAA CTTGGGTATT GAGATTATAA 120  
A 121

SEQ ID NO:4100

LENGTH:121

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04831

SEQUENCE DESCRIPTION:

GATCAATCTC TCCCTCAGCT TTCTTTCCTA CTTTGCAGC TTTGCTGGCT TTAACTGCT 60  
TCATTCTTCT GCTTCATTGG TATCCTTTTT TCTTTTGAAA TAAAAACATG AAATACTTAA 120  
A 121

SEQ ID NO:4101

LENGTH:121

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04832

SEQUENCE DESCRIPTION:

GATCGACTGA GTCCAGAAAG TCAAGGCTGC AGAGAGCCAC ATTCAGTCA CTCCAGCATN 60  
GNTGNCAGAG GNAGACCCTG TCTCAAAAAA AAAAGAAAAA AGAAAAAGTG ACAATGNCAA 120  
A 121

SEQ ID NO:4102

LENGTH:119

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04833

SEQUENCE DESCRIPTION:

GATCGGTAGG GGGCCTGCTC CTCGGACTCT GGTTACCTCT AAGGCTGGGA AAGGCCTGGT 60  
TGCCCACTGC NTCNTCCCT GCCCTCCTT TNATGTCCAT AAAGTGGCGT GAAGTGAAA 119

SEQ ID NO:4103

LENGTH:116

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04834

SEQUENCE DESCRIPTION:

GATCACCTT AAATCNGNGT TGGGAAAATA TCAATTAAT GGACTCTCTG GTTGAATTC 60  
TCAATATGTA TCTTAATATG AAATAGCTCA TAAAACTTC ATGTGTAAT ATAAA 116

SEQ ID NO:4104

LENGTH:115

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04835

SEQUENCE DESCRIPTION:

GATCTGGGTG GTAGTACTG GGTGTGTTCT CTTGTGATA CTCTCTCGAG ATGTACACTT 60  
AGGATTGCA ATCTTTCTG TAAATATTT CAATAAAGA CATTATTTT TAAA 115

SEQ ID NO:4105

LENGTH:115

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04836

SEQUENCE DESCRIPTION:

GATCTTAGCT AAATCTCGGT AGATGTCATT ACAACCTNGA AAATAAATCA CCCTAAGTGA 60  
CACAAATTGA AGCATGTACA AATTATACAT AATAAAGTGT TTTAATAAT TGAAA 115

SEQ ID NO:4106

LENGTH:115

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04837

SEQUENCE DESCRIPTION:

GATCTNCAC CTCTGGNAA TTAATTTGT TGGTCACTGG GGAAAGCCTG AGTTTGCAAC 60  
CAGTTGTAGG GTTCTGTTG TGTTTTTTT TTTTTTTTAA AAAAAAANTN NAATN 115

SEQ ID NO:4107

LENGTH:115

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04838

SEQUENCE DESCRIPTION:

GATCAGACAA GGAATGAAGC AATGNCCTGTG GGCTGGGAAA CTGTACCTAC CTCTCTNCCC 60  
ACTGCAAATN NCTGGGATAG ACCAAAAGTG AATTAAATTA TGTNTTGGCT GAAGN 115

SEQ ID NO:4108

LENGTH:115

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04839

SEQUENCE DESCRIPTION:

GATCCCAACT TGAAACAACA GCCAGTGCCT GTGGTAACTT AANNTNTTGT CAAATACTTT 60  
TATTGATTGG TTTATATGCC ATTNTTGTTA TAGAAGAATA TGCCTTTTAA AAANN 115

SEQ ID NO:4109

LENGTH:112

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04840

SEQUENCE DESCRIPTION:

GATCAGCTCC GTGGGACTGA TATTGGTCCA CANCANAACA GGCAGTGCCT CCTTCCCTCT 60  
GGGGAATGCA AAAGAAANCA TGGATTAAGN GAGAAGGGAG ACTCTCAGCN TN 112

SEQ ID NO:4110

LENGTH:111

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04841

SEQUENCE DESCRIPTION:

GATCGCCCAA TAAACATTCC CTTGGATGTA GTCTGAGGCC CCTTAACTCA TCTGTTATCC 60  
TGCTAGCTGT AGAAATGTAT CCTGATAAAC ATTAAACACT GTAATCTTAA A 111

SEQ ID NO:4111

LENGTH:111

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04842

SEQUENCE DESCRIPTION:

GATCGGCATA TGCATATCAA AAACAGCTCC CAGCTCTGTA AGGCATTAGA GTGAAAGCAN 60  
ANAATTTTTT AATGAAACAT TTATTTGCCT TCTTTTACTG CAGTGCTNNN N 111

SEQ ID NO:4112

LENGTH:111

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04843

SEQUENCE DESCRIPTION:

GATCATACTN CTTTATCTAG AGNTTGTCT CAGCTTGCAG AGNTTGAGGA GAAGATAGAC 60  
CAGTTACATC AAGAACAAGC TTTTCCTGAC TTTAATATGT TTNCNGAACT N 111

SEQ ID NO:4113

LENGTH:110

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04844

SEQUENCE DESCRIPTION:

GATCACAGTG CAGATAATTA CCTCACACCT GTTAGGATGG CTTTCACCAA AAAGACAAAA 60  
GATACGTGTA GGCAAGGATG TGGAGGAAAG AGAACTCTTG TATACGTAAA 110

SEQ ID NO:4114

LENGTH:110

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04845

SEQUENCE DESCRIPTION:

GATCTTAGTC CGTTTTTTTT TTATATATTG TAACGTAAA TGAAAAAGA ACCCCCCTNN 60  
TGTATTATAG TCATGCGGTC TTATGTATGA TAAACAGTTG AATAATTTAA 110

SEQ ID NO:4115

LENGTH:110

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04846

SEQUENCE DESCRIPTION:

GATCTGGGAC TTCCAGAAAA CAGAACTNTN AAAANACAAG TTTCTTTTGT TTAAACCACC 60  
CAATCTNAAG TATTTTTTNA TGGCAGTCCT GGCAGACTA ATACAATATN 110

SEQ ID NO:4116

LENGTH:109

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04847

SEQUENCE DESCRIPTION:

GATCTATCAT AAAAAGCAAT GTCTTCTCTG GAATGGGGCT TCAGTTTCCA CATTTACAAT 60  
TAGTACATAT TACAATTAGT GATATGAATA AAGGCTGTGA TCCTACAAA 109

SEQ ID NO:4117

LENGTH:109

TYPE:nucleic acid

TOPOLOGY:linear

2153480

CLONE:HUMGS04848

SEQUENCE DESCRIPTION:

GATCAAAACA GGTGACAGTG AAGTGGTTTC GGCCCTGCCA ATCTGATATC GTGTATGTAT 60  
GAGAGTGGTC AGCATTTTAC CACTGGTAAC AAGTTCCTTN CTGTNCAAA 109

SEQ ID NO:4118

LENGTH:109

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04850

SEQUENCE DESCRIPTION:

GATCTATATA ATTTATGTAT CACCTTCATT GTAAATTTAG CAGGAAATGC ATCACAATTA 60  
TNATTTTTTT TTTTGNACC AGTGAAACAA TAAAGATGCT ATTACCAA 109

SEQ ID NO:4119

LENGTH:107

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04851

SEQUENCE DESCRIPTION:

GATCATGTTG CTGGCTTTTA TAAACTCTAA GCGAAGGAGG AGCACTGCCT CAGCCTTTGC 60  
ACATGGTAAT GAAGCACTGT TTTTAAATAA AAGAGAGAAA CACCAAA 107

SEQ ID NO:4120

LENGTH:118

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04852

SEQUENCE DESCRIPTION:

GATCCGTGAG GCGGTGANTT GGA CTGGGACC CACTGCTGAT TCCCTGCACC TAGCACAGTG 60  
CTTGCCACAA AGTGGGCTCT CAATAAATAT TATTTGTCCA AGGAAGGAAT GAATGAAA 118

SEQ ID NO:4121

LENGTH:108

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04853

SEQUENCE DESCRIPTION:

GATCGTCTGA GCCCCNCGGG CACTGGGTGG GGCAGAGCAC GAGTTATTTA AAACAGTTAC 60  
ACTGCAGGGT TTCGCCAAT AAAGGTGGAC TGACATTCCC TCTTCAAA 108

SEQ ID NO:4122

LENGTH:107

TYPE:nucleic acid

TOPOLOGY:linear

01313



CLONE:HUMGS04854

SEQUENCE DESCRIPTION:

GATCTTTTAT ACTCAGNTTN AAACACTTTA CTTGGGTTTA CCAAGCCTCA ACTGGCATA 60  
CATAAACANG CCACANGGAC CGTTCCTGCA GGCCCAACCC ACAGGGN 107

SEQ ID NO:4123

LENGTH:107

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04855

SEQUENCE DESCRIPTION:

GATCCGGAAC CCACTTTTTT ATTCACTCCC CATCGTCGTT TGGCCNTTCC ATCNNTCTTT 60  
NTCTTCCCT CTGCCATCCG TGACACTGAT AGTTNGTCAT ATAAATN 107

SEQ ID NO:4124

LENGTH:106

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04856

SEQUENCE DESCRIPTION:

GATCTCCAAT CTCCTCGGTT GCAACACCTG AATAAAGCCT TCTCCCTCA CAATACTTGN 60  
NNNCTCAGTG ATTGGCTTAC TGTGCAGTGA GCAACCTAGA CCAANN 106

SEQ ID NO:4125

LENGTH:102

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04859

SEQUENCE DESCRIPTION:

GATCAAAATC ACGTTTGTAG TATCATATCA AAAATTCTAA CCTGTTTACA TTGTTTTNAT 60  
GTTATGTTC CTATGTTATT AAAATATTAT TTTGTACTTA AA 102

SEQ ID NO:4126

LENGTH:101

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04860

SEQUENCE DESCRIPTION:

GATCTACGGC AATGTGAATC ATTCAGATGT TTACAATAAA AAACACCACA TGAGTAAATG 60  
AATTCACTAA TGTTAATGTT AAACCTCATG GAAAGNNNNN N 101

SEQ ID NO:4127

LENGTH:100

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04861

SEQUENCE DESCRIPTION:

GATCCCCCT CAGGACAAAT CTACTCCAGC CACGATGAGA AGTGGGTGAG CCAGGGTCTG 60  
AGTTTCACAT TTGAACCAAA TAAAATGCTG TCAAGAGAAA 100

SEQ ID NO:4128

LENGTH:97

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04862

SEQUENCE DESCRIPTION:

GATCATGCCA TTGACTGCA CCTGGGCAAC AAGAGTGAAA CTCGGTCTTA AAAAATATAA 60  
GAAATAAAAA AATAAAACC GTCCCCAGA CTGGAAA 97

SEQ ID NO:4129

LENGTH:97

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04863

SEQUENCE DESCRIPTION:

GATCCTGAGC TAGGAGAGTA CATTTGCAG ACCTTGGTT TCCATATTAA GAAATTCAGA 60  
TTTTNATGTA CAATAAGAA GTTCTGGAAT TCTCAA 97

SEQ ID NO:4130

LENGTH:96

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04864

SEQUENCE DESCRIPTION:

GATCTCTNTN CAGCCCTAAA GCTCCTTGGT TCTGTAATTC CACCAATAGC CCATTTCAAA 60  
AATAATTCTA CAGTAATCAG TGGGACTCCT GTTTN 96

SEQ ID NO:4131

LENGTH:95

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04865

SEQUENCE DESCRIPTION:

GATCACACCA CTGACTCAA GCCTTGGCAT CAGAGTGAGA CTCTGTCTCA GTAAAAAAA 60  
AATAAATAA TAAAAATGTT TAATTAACCA TGAAA 95

SEQ ID NO:4132

LENGTH:95

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04866

SEQUENCE DESCRIPTION:

GATCGTAGGG CATCAGAAAA ACAAAAAGAA ATAGAGAGAG TAAAAGAGAA GCAACAGAAA 60  
GAACTCAATA AACAAAAACA GATTGAAAAG GTAAA 95

SEQ ID NO:4133

LENGTH:98

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04867

SEQUENCE DESCRIPTION:

GATCTTTATT GTTCCTCACC CCATTTTCCT CCTTGTGTAT GTACTTCCCC CACCCCCCTT 60  
TTTTTAAGTA AAATGTAAAT TCAATCTGCT CTAAGAAA 98

SEQ ID NO:4134

LENGTH:94

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04868

SEQUENCE DESCRIPTION:

GATCTAATAA GTATTGGAAT GCTTCCTATT TGCTGATAGA AGTACCAAAT AGTATTATTG 60  
AAGTCTAACA AAGACTTTTT GTTGAGAACA CAAA 94

SEQ ID NO:4135

LENGTH:94

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04869

SEQUENCE DESCRIPTION:

GATCGAGGTA AGAGGGACTT TNTTAAAGGC CTAGTCTATG GGATGGGGCG GCGGAGGGAA 60  
TTTTTTGAGA AATAAAATGA AGCTGCAGTG TAAA 94

SEQ ID NO:4136

LENGTH:92

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04870

SEQUENCE DESCRIPTION:

GATCACACCG CAGACATTTA GATTTTATA CCCAAGGCAC TTTAAAAAAA TGTTTATATA 60  
ATAGAGAATA AATTGAATTC TTGTTCCATA AA 92

SEQ ID NO:4137

LENGTH:91

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04872

SEQUENCE DESCRIPTION:

GATCTTTACT GATGCACTCA TGACAAGTAC CCAATGTATT TTAGCTATTT TAGTAGTATT 60  
TGTTCAATAA ATACGCAAGC TGTAAGGTAA A 91

SEQ ID NO:4138

LENGTH:91

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04873

SEQUENCE DESCRIPTION:

GATCTGCTTT TCTGCACTGT TGTCTGTGTG TCTGCGTTGT GTGTGATTTT CATGGAAAAA 60  
TAAAATGCAA ATGCACTCAT CACAACTAA A 91

SEQ ID NO:4139

LENGTH:90

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04874

SEQUENCE DESCRIPTION:

GATCAAAAAA AATAAATCAC AATGGTATTT AGAAAATATT TTTCAGTGAA GGCTAACAAA 60  
ACACTACATA TTAAATTAT AAAATGCAAA 90

SEQ ID NO:4140

LENGTH:90

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04875

SEQUENCE DESCRIPTION:

GATCTTTTGA TGTGCACTAA TGCCATTATT GGTAATGCCG GTTATTGGTG AATACAGCAT 60  
AGTTAAATAA ACTGTTACAG TAAATCTAAA 90

SEQ ID NO:4141

LENGTH:89

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04877

SEQUENCE DESCRIPTION:

GATCTAGGGC AAAGTTGTC AACTGTTGGC CCATGGAACA GCTTTGAATG CAGCCCAACA 60  
CAAACTCTATA AATTNCTTA AACATTAAA 89

SEQ ID NO:4142

LENGTH:88

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04878

SEQUENCE DESCRIPTION:

GATCAGTCTC ATGGGCCATC TCTTCCTCAG ATGTAAATAA TATCTGGTTA AGTGTTATAT 60  
GGAATAAAGT GGACATTTTA AACTAAA 88

SEQ ID NO:4143

LENGTH:88

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04879

SEQUENCE DESCRIPTION:

GATCTCAGTG ATGTTTGAAC CTTCTGTGTA ACTTTTTATT AAGTCTTTGT ATCTCTCGAC 60  
TGATTAATAA AGAAGAGAAA CACGTAAG 88

SEQ ID NO:4144

LENGTH:87

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04881

SEQUENCE DESCRIPTION:

GATCTTTATT GGTGACCTTT TGTAAAGACAT TAGTTTGAGG TACTACCTAT GTACTTGAAA 60  
ATAATAAAGT GGCATTTCTT TATGAAA 87

SEQ ID NO:4145

LENGTH:86

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04882

SEQUENCE DESCRIPTION:

GATCCACTTT GTACTCCTAC CAGTAGGAAC GGTCTTCTAA CAGAGAAGAT TATAGCAAAA 60  
AATAAAATCT CTTCTTAATT CCCAAA 86

SEQ ID NO:4146

LENGTH:86

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04883

SEQUENCE DESCRIPTION:

GATCCAAAGT CCAGCTCTCT CACTGAAGCC TTATCTTTCTG GAAAGCTTCC AACAGTAACT 60  
CAGGAATTNA GCTTACTTGC TTAAAA 86

SEQ ID NO:4147

LENGTH:85

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04884

SEQUENCE DESCRIPTION:

GATCTAAAGA AGAAGGTTCA GTTTCAAAC AGAATTAGA GAAAATATAA AGAAATAATT 60  
TCTTGCTCA AAAGGCCAAA GTAAA 85

SEQ ID NO:4148

LENGTH:84

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04885

SEQUENCE DESCRIPTION:

GATCCAGCTG TGCCTAAAGC CTGCCCTACC TCCGGACTTT AAAGTTTGT GAGCCAATAA 60  
AGTCCCTTTC TTGTTTAAGA TAAA 84

SEQ ID NO:4149

LENGTH:84

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04886

SEQUENCE DESCRIPTION:

GATCTGAAAA GGCATTAATT TATGTACTAA TTCTATAAAC ATGTATTAAT AATTGCAGTA 60  
TTATTAAATA CAGATGGACT CAAA 84

SEQ ID NO:4150

LENGTH:83

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04887

SEQUENCE DESCRIPTION:

GATCAGGCCC CCCAATCTC CAGAACAGGC TACAAACATG CAAATTAGAA TTCTTTTAAT 60  
ATAAAAAAAAA GTACTAAAAT AAA 83

SEQ ID NO:4151

LENGTH:83

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04888

SEQUENCE DESCRIPTION:

GATCAGAGGG NAGTACAGAA NCCCTGAACT AAAGCNTTAA GTACATACCA TACAGCAAAT 60  
AAATGGTAGC AAAACATTCT AAA 83

SEQ ID NO:4152

LENGTH:83

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04889

SEQUENCE DESCRIPTION:

GATCTAAAAT TTGTAATATT TTTGTCATGA ACTGTACTAC TCCTAATTAT TGTAATGTAA 60  
TAAAAATAGT TACAGTNACT AAA 83

SEQ ID NO:4153

LENGTH:81

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04890

SEQUENCE DESCRIPTION:

GATCACATGG TTCACTACCA AATNACCCTC AAATAAGCCA GATGAAAATT TGAAGAAAAA 60  
GGTCACCCAG TTCTCTGGAA A 81

SEQ ID NO:4154

LENGTH:81

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04891

SEQUENCE DESCRIPTION:

GATCAGAGCG TAGTTTAAAN TGTATTTTGG ATACACTTGT GAAATATTTT ATAGAAATAA 60  
AAATTTTAC TTAGGAGCAA A 81

SEQ ID NO:4155

LENGTH:81

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04892

SEQUENCE DESCRIPTION:

GATCCTTCCT CCCACCCTAN GCCTTCCTTT CCTCTTTCCT CCTCACTCTC CCCGTCATGC 60  
TCCCTCTGCC CNGNCCTCAA A 81

SEQ ID NO:4156

LENGTH:80

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04893

SEQUENCE DESCRIPTION:

GATCCAAANT AGTAACNTT TNTNATGAAC TGTACTACTC CTAATTATTG TAATGTAATA 60  
AAAATAGTTA CAGTGACAAA 80

SEQ ID NO:4157

LENGTH:79

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04894

SEQUENCE DESCRIPTION:

GATCATTAGT CAATTGCTTT AATTATAAGC CCTGTTTTTT TTAAATCTA AAAACTAATA 60  
AACATCTATA AGAATTAAA 79

SEQ ID NO:4158

LENGTH:79

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04895

SEQUENCE DESCRIPTION:

GATCNACTGT CAAAAAGAAG GGTTCAGTA AAATAAAATG AGAGCAATTA TATATATAAA 60  
TATATATCAT ACACAGAAA 79

SEQ ID NO:4159

LENGTH:76

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04897

SEQUENCE DESCRIPTION:

GATCACCTGA ATTCTGGAGG TTGAGGCTGC ACCACTACAT TCCAGCCTGG GAGATAGAGT 60  
GAGAGCCTGT CTAAA 76

SEQ ID NO:4160

LENGTH:76

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04898

SEQUENCE DESCRIPTION:

GATCCCAAAT NTTCCACAA GCTTTATTCC AAAAATAATT TTATTTAATA GGTATTAAAT 60  
AATGTATAGA AGGAAA 76

SEQ ID NO:4161

LENGTH:74

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04900

SEQUENCE DESCRIPTION:

GATCTTCCTG TTTCAGTCCC CAAGGTGTTG GGATTATGGG CATGAACTGC TGCACCCAGC 60  
CCTTTATACT CAAA 74

SEQ ID NO:4162

LENGTH:73

TYPE:nucleic acid

TOPOLOGY:linear



CLONE:HUMGS04902

SEQUENCE DESCRIPTION:

GATCACTGGT ATGTAGATAA TAAAATGTGA AAATAAAAAAT TTAAAAATAA AACAAAAAATT 60  
ATGTGATAAT AAA 73

SEQ ID NO:4163

LENGTH:73

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04903

SEQUENCE DESCRIPTION:

GATCGTGCAA CTGCACTCCG GCTTGGGCTA CAGAGTGAGA CTCCATCAGA AAGAAAAGAA 60  
GAGAGAGATG AAA 73

SEQ ID NO:4164

LENGTH:74

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04904

SEQUENCE DESCRIPTION:

GATCAGCATG TAAAGTGTCT GCGGTGTAGT AGGCTCTTAA TAAACACTGG CTGAATATGA 60  
ATTGGAATGA TAAA 74

SEQ ID NO:4165

LENGTH:72

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04905

SEQUENCE DESCRIPTION:

GATCTCAACT CGTGGCACTA ACTTGAAAAA GGGTTGATTT AAAATAAAAG GGAAGACTAT 60  
TTTACAAGCA AA 72

SEQ ID NO:4166

LENGTH:70

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04907

SEQUENCE DESCRIPTION:

GATCCTAAAC AGATGCATTG TTGCTTTTCT GTGCTGTCTC TGCAGATTAA AACATAATGA 60  
TTACACTAAA 70

SEQ ID NO:4167

LENGTH:135

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04908

SEQUENCE DESCRIPTION:

GATCTATTAT GCCTTTTAC AAAAAAATG GCTGTAAATN ATTGTAAATA TTAAAGGAAC 60  
TTTCCTTACT TCCTTCCCTT TCTCAGGCTT TTTTGACTG TTCCTTCCC TACCAACTCA 120  
GGCCTTCTTA TTAAA 135

SEQ ID NO:4168

LENGTH:69

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04909

SEQUENCE DESCRIPTION:

GATCTCCCTG GAGGTTTCAT AGCAAGGTTT GACTTGATGA ATTAATTAAT AAAGCTAAAT 60  
ATCCTGAAA 69

SEQ ID NO:4169

LENGTH:67

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04910

SEQUENCE DESCRIPTION:

GATCACCCAC GGGGAGGAGA AGGAGGAGTG AGACCCAGCC GGGTCAATAA ACCTGGACGC 60  
TTGAAA 67

SEQ ID NO:4170

LENGTH:65

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04912

SEQUENCE DESCRIPTION:

GATCTGCTTA TAAATAAACT TAACAAATAC ACTATGGAGA TAAAAACAA AATACCACCC 60  
ACAAA 65

SEQ ID NO:4171

LENGTH:64

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04913

SEQUENCE DESCRIPTION:

GATCTGTTTC TCTAGAAAAA AAGTCCATCT CTGGCTTTAA TAAAATTATG CATCAGAAAT 60  
CAAA 64

SEQ ID NO:4172

LENGTH:76

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04914

SEQUENCE DESCRIPTION:

GATCTCATGC TNAGCAGAGC AAAAATTGTA AAATATTTTG ATTAAAAATC TAGGGACCTT 60  
TATGTCCTAT TTGAAA 76

SEQ ID NO:4173

LENGTH:63

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04915

SEQUENCE DESCRIPTION:

GATCAGGAAG TGGCTTTGTG TCTTCCACA TGTATGTATA AATAAAGTGT TCTTTAAGC 60  
AAA 63

SEQ ID NO:4174

LENGTH:63

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04916

SEQUENCE DESCRIPTION:

GATCCTCATT TTTCCCATTT GTAAAATTGG GCTAATAAAA GATGCTACCT ACTGACTATT 60  
AAA 63

SEQ ID NO:4175

LENGTH:62

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04917

SEQUENCE DESCRIPTION:

GATCAGGCTA CTGCACTCCA GCACTCCAGC GCAGGCAACA GAGGGAGACT CTTGTCTCA 60  
AA 62

SEQ ID NO:4176

LENGTH:62

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04918

SEQUENCE DESCRIPTION:

GATCCTGAAT TTCCAGCCA ACAGAACCAA GTGCTAAATA AAATCTTTT TAATAAGTTA 60  
AA 62

SEQ ID NO:4177

LENGTH:62

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04919

SEQUENCE DESCRIPTION:

GATCAAACT CTGTTCTCAA AAATAAATAA AAAATAAAAA ACAAACAAC AACACAACA 60  
AA 62

SEQ ID NO:4178

LENGTH:61

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04920

SEQUENCE DESCRIPTION:

GATCACGCCA CTGCATTCCA GCCTGGGAGA CAGAGTGAGA AATAAATAAC TGTAATGTAA 60  
A 61

SEQ ID NO:4179

LENGTH:60

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04921

SEQUENCE DESCRIPTION:

GATCCAAGCA AACTACTTTA AGCAAATATT TGTAATAAATA AAAACGGAGG ACCGCTCAAA 60

SEQ ID NO:4180

LENGTH:60

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04922

SEQUENCE DESCRIPTION:

GATCTAACAG TTCTCAATA AAATAGTTCT CATTCCAGAG AGCAGATGAA TATATTTAAA 60

SEQ ID NO:4181

LENGTH:59

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04923

SEQUENCE DESCRIPTION:

GATCTATGAC TGTACTACAC TCCAGCCTGG TCAACAAAGC AAGACCATAT CTCTTTAAA 59

SEQ ID NO:4182

LENGTH:59

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04924

SEQUENCE DESCRIPTION:

GATCCAAGTA TTTNATCTGT GTTGTCTCTC TAAACCCAAA TAAATGTGTA AATGTGAAA 59

SEQ ID NO:4183

LENGTH:59

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04925

SEQUENCE DESCRIPTION:

GATCCAATAC ACACATANCT TACAACTATC ACAAATTCCT ATTAAATATT AAAAGTAAA 59

SEQ ID NO:4184

LENGTH:59

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04926

SEQUENCE DESCRIPTION:

GATCTCAAAN NGAAATCTTA TACCAGTGAC AACTGTATTA GAATATATCT GTTCTTAAA 59

SEQ ID NO:4185

LENGTH:57

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04927

SEQUENCE DESCRIPTION:

GATCTCATAT TAATATTTTA ATATTCTTT TCAAAATAAA ACAGAAAAGC AAGTAAA 57

SEQ ID NO:4186

LENGTH:57

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04928

SEQUENCE DESCRIPTION:

GATCTGTGTG TTCTTTCAAA GAGAAGTTAT GTCTAATTAA AATGTGTAAC GGACAAA 57

SEQ ID NO:4187

LENGTH:57

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04929

SEQUENCE DESCRIPTION:

GATCCGNGAG AGAACGACCA CAATTTAAAC ACATCAATAA ATACTTTAAC TTCCAAA 57

SEQ ID NO:4188

LENGTH:56

TYPE:nucleic acid

TOPOLOGY:linear  
CLONE:HUMGS04930  
SEQUENCE DESCRIPTION:  
GATCAAGAAG GACTACCTGT CATGTGAGAC CATCTAAG AAACCATTG CTGAAA 56

SEQ ID NO:4189  
LENGTH:52  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS04940  
SEQUENCE DESCRIPTION:  
GATCCCACTT CGGTCTGTAA ATTCCCTCAA TAAATCACCC AATATTGACA AA 52

SEQ ID NO:4190  
LENGTH:51  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS04945  
SEQUENCE DESCRIPTION:  
GATCCCCAAA GCTTAAAATA TCGACTATTT AGAGTGAGAC TCCATCACAA A 51

SEQ ID NO:4191  
LENGTH:51  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS04947  
SEQUENCE DESCRIPTION:  
GATCAGCCAN GCATTCCAGC CTGGTGACAG AGCGAGACTC TGTCTCNGAA A 51

SEQ ID NO:4192  
LENGTH:56  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS04948  
SEQUENCE DESCRIPTION:  
GATCTTGTTT GTTGAGGGAG ATGGGACTAT AATAAAATTG AATGCTGAAG TTGAAA 56

SEQ ID NO:4193  
LENGTH:50  
TYPE:nucleic acid  
TOPOLOGY:linear  
CLONE:HUMGS04950  
SEQUENCE DESCRIPTION:  
GATCGCGCCA CTGCGTTACA GCCTGGCGAT AATGCAGGAC TCAGTCCAAA 50

SEQ ID NO:4194

LENGTH:113

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04965

SEQUENCE DESCRIPTION:

GATCTGTCTT GTAAACCACA TTCTTGACAA CTATTGCTT TTGAGTAGTT TGTATTTTAA 60  
TATGTGACTT TNGTCTTGAA AAGTAGTAAA GCCATAGACT TGTGCAAAAC AAA 113

SEQ ID NO:4195

LENGTH:192

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04985

SEQUENCE DESCRIPTION:

GATCATTATG CAATAAAGCT GCTAAAGTNA CATTTGTGGT TGATACTCAA GCCTTGTTACA 60  
AGCACATATN ATGTAGACAT TTTNAAATGT NAAGCTTTAA CAGGAATAGG ATAGCTGTTT 120  
CAAACCTTGT GCAATTGTAA ATAAATTGTT TAGCTGTGTT TCTTTCATTT TNAATAAAAA 180  
ATTAAAAAGA AA 192

SEQ ID NO:4196

LENGTH:50

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04986

SEQUENCE DESCRIPTION:

GATCAATTTG TAATTGCTTA CATTTTACA ATAAATAATC TGTACGTAAA 50

SEQ ID NO:4197

LENGTH:282

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04987

SEQUENCE DESCRIPTION:

GATCTTTCTT TGGCAACCAC TTTTACTGT CGCCATAGTT CTCCTTTTC TAGAATGTCA 60  
TATTGGAATC ATATAGTATG TAGCCTTTTC AGACTGGCTT CTTTCACTTA ATAATATGCA 120  
ATTAAGGTTC CTCCATGTCA TTTCATGGCT TAATAGTGCA TTTATTTTGA GCACTGAATA 180  
ATACTCCATT GTCTAGATGA ATAGTTTATC CATTCACCTA TTGAAAGACT TCTTGGTGGT 240  
TTCCAAGTTT TGGCAATTAT GAATAAAGCT GTTGTAACA AA 282

SEQ ID NO:4198

LENGTH:257

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04988

## SEQUENCE DESCRIPTION:

GATCTTTTCA GTCAAAAATC TAAGATGATT TATTTTGTAT CACTTTGTTA AAAGCTGAAT 60  
ATTGTTAACT ACAGTTAATA TTAACACTGT ATTTATACTT TCTCAAACTA CATCCGCCCC 120  
ACCACTTCTG GTTGCCTCTG TTGACTATTA ATCCAGATGT AAACAACCAG ATGTTTTTTT 180  
CTAACTTGTA CAAACTGACG TGTGTCAACT ATCATGGAAG GAAAAAATG TACAGATTAA 240  
AATTATTCAG NGTTAAA 257

SEQ ID NO:4199

LENGTH:132

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04989

## SEQUENCE DESCRIPTION:

GATCCAGGNG TTGACTATAA CCAGATTTAC TCTTTGCTTA CTAGGNTTTC CATNNTCACC 60  
ATTGGATGAA CCNCTGGTTT AGCCACAGTT GTGAAAATAA ATGGAAGTTG GTTGATTGTC 120  
TAGAAAGTGA AA 132

SEQ ID NO:4200

LENGTH:51

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04990

## SEQUENCE DESCRIPTION:

GATCCGCATC CAAGCTTAAC CAAGGCTCCA ATAAACGTGC TAGGAAGCAA A 51

SEQ ID NO:4201

LENGTH:108

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04991

## SEQUENCE DESCRIPTION:

GATCAGTCGC TGACTCATTG GATGAACCAG GAGCCTGCAT GCTACAGCCC ACCTGCCAAA 60  
TCTTGCCCCC ACCTGCTTTT TAAAATAAAG TTTTATTGGA ACATGAAA 108

SEQ ID NO:4202

LENGTH:113

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04992

## SEQUENCE DESCRIPTION:

GATCTTTGCT CTGTTTCCAG TGGGGTTTGA AGCAGAGTTC AGGGAACCCT GCCCAAGGTC 60  
CTCCTGTTCA GACATTCCTA TGTGAATAA AGTATGTTTG ACTTCCCCGG AAA 113

SEQ ID NO:4203

LENGTH:471



TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04993

SEQUENCE DESCRIPTION:

```
GATCCACCT CAAATTAGCT TGATTGCAAA ACAGATATTG GAACATGGAG CTGAGAAGAA 60
GATGGTCTGG GCTTCAGGCA CAGCTGGGTC CAGGGACTCA GACNNNTTG TCTCCATCTA 120
TCTNCTGTGT TTTNCTGTAG GAGGTGGCCT CACTTTCCCC TAGTTCAAAA GGGCTTACTC 180
CATATGATGG GGAAGGGAA GACAGGNCCA TGAACAGCCC TAGACTTCCA TCAGCCCACC 240
TGGGAAGCCC TCACAGGAAA ATNAGTCTCA TTCCTAGTAC ATGAAATCTC AGGGGAGGGA 300
ACTCCGATT GGCACCTTC AGTNATGTGC CCNGTCCCTN GGGGCCAAAT CCNCTTTTGG 360
GTTGGTGGGG GCGGGTTTCA AGTGATTGGG NAAATNGCCA ACCNAAAGTT CANGTTNGAA 420
GTTGGAGNAA NGGGGAANTT TTNCCCAAAA AGAAANGGNA AGGTTTGNTA N 471
```

SEQ ID NO:4204

LENGTH:338

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04994

SEQUENCE DESCRIPTION:

```
GATCAGGAAT GGGTGATTGG AGATTATTAG ATTCTAGGTT AACTTCTACC ACTTTACCT 60
AATACATAAA ACTTTTTCCT AAATAAATGA TGGAAGGAAT AATACTGGT TACCTGGCAT 120
TATTTTTCAG TAAGAAAAAA GCTTTACTAA CCACTACATT TATGGAAATT TGTAGGGGTA 180
AGTATTTTAT AGGTCATAAA AAACACCATA ATATAACGAA TCTCATTTNC TTTAAATGTG 240
AATTAATCC TAACAGTCAT CTTTATAAAA TGACCATAGG CTAAANTCTT ACGTGTAAGT 300
NCTACTACAN TAAATANTTT CTGGAACCT TTTATAAA 338
```

SEQ ID NO:4205

LENGTH:237

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04997

SEQUENCE DESCRIPTION:

```
GATCACCTTC CAGACCACAG CAGATGTGGG ACACACAGCC TCCTGACTCC AGGAAGAGCC 60
AGANCTGTGC AGGGAGGAAG GGGTGAGAGG GGGGCCCCCA CACCTAGACT CAGTAAGGAA 120
GTCGGGTNG ACCTAACAT CTNCATTGGA CAACTCCACC CNTNCCTTG CCTTGCCCT 180
GCCCCNNTAC ACTCCTACGT NTCCANGGC TTNGCCGTG ACTTAGGNAG AGGAGTN 237
```

SEQ ID NO:4206

LENGTH:313

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04998

SEQUENCE DESCRIPTION:

```
GATCATCCGC AGNCTCATGT TAAAAGGATT TTAGCTCACT AAAAGTGTA TAATGGAAAT 60
GTGGAAAATA TCGTAGGTAA AAGAACTAC CTCATGCTCT GAAGGTTTGT TAGAAGCACA 120
```

ATTAAACATC TAAATGGCT TTGTTACACC AGAGCCATCT GGTGTGANGA ACTCTATATT 180  
 TGTATGTTGA GAGGGCATGG ANTAATTGTA TTTNGCTGGC AGTAGACACA TTCTTTATTA 240  
 TTTGCAGATT CCTCATCAA TCTGTANTTA TGCACAGTTT CTGTTATCAT TAAACAAAG 300  
 GAATCCNGTT AAA 313

SEQ ID NO:4207

LENGTH:271

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS04999

SEQUENCE DESCRIPTION:

GATCACATCT NTNTGAAGCC AAAGCCCCGT GGTGCCCCAT GAGAAGTGTC CTTTTTCATT 60  
 TTCACCCAAA TGAAGTGTGA ACGTGATGTT TTCGGATGCA AACTCAGCTC AGGNATTCAT 120  
 TTTGTNTCTT AGTTTTATAT GCATCCTTAT TTNTAATACA CCTGCTTCAC GTCCTATGT 180  
 TNGGAAGTCC ATATTTGTNT GCTTTTNTTG CAGCATCATT GCCTNTACAA TACTGNCCGG 240  
 TGGACAAANT GACAATNGAT ATGTNTTGCT N 271

SEQ ID NO:4208

LENGTH:345

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05001

SEQUENCE DESCRIPTION:

GATCGCACTG TGGGCCGGGG CCCTGGAGGG CTGCTCTGTG TTAATAAGAT TGTAAGGTTT 60  
 GCCCTCTCA CCTGTTGCCG GCATGCGGGT AGTATTAGCC ACCCCCTCC ATCTGTTCCC 120  
 AGCACCGGAG AAGGGGTGC TCAGGTGGAG GTGTGGGGTA TGCACCTGAG CTCCTGCTTC 180  
 GCGCTGCTG CTCTGCCCCA ACGCGACCGC TGCCCGGCTG CCCAGAGGCT GGATGCCTGC 240  
 CGGTCCCCGA GCAAGCCTGG GAACTCAGGA AAATTCACAG GACTTGGGAG ATTCTAAATC 300  
 TTAAGTGCAA TTATTTTAA TAAAGGGGT ATTTGGAATC AGAAA 345

SEQ ID NO:4209

LENGTH:406

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05002

SEQUENCE DESCRIPTION:

GATCTTACTT TCATAATTCT TTGATTCTAG CTGTCAGAGT CAAGACGNAA AGNTAACTCA 60  
 TGGGATGGAC AAAGTGAAG ATGTAAAATA AGTAAGGCTT TNTGGGCCAA AAAGCCTCTT 120  
 CTTACAGAAA ATCAAAATTT AAAAGAACAT TGACCTCAA ACAATAAAAC TGTCTGGTT 180  
 ATGCAATAGA AATAGCTATA TAAATGGAAT CATATCCTTA ATGAACACCT CCTGTGGCTA 240  
 CCCAACTTTT CACACATCTT ACTGATTATA GGCCTTGCTG TGAATGCTTT CTTGCTCTAT 300  
 CTGAAGTATT CCCACCAGAG TTGTTTCCAA CNTTATTCC TATATTATGA AAAATGANGT 360  
 TTTTTAACA TTGTAACAAA GTATTTGNAA GGTAATGTAT ACTGTN 406

SEQ ID NO:4210

LENGTH:74

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05003

SEQUENCE DESCRIPTION:

GATCTAAAAA AANNTAAATT ACATTAGTAA CACAACATAA GAAAAAGACA GGGACAAAAA 60  
CAAAAAAAA TAAA 74

SEQ ID NO:4211

LENGTH:230

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05004

SEQUENCE DESCRIPTION:

GATCCTATGT GGAAGGGCTG TTTTAAAGA AAAAATTTT GGTAACAGT ATTGTGTAAA 60  
ATTGCTTTT GTATACCAAT ATATGCATGT TTTGTGCATG AGTAGTACTT GTGTTGATAC 120  
TCCTGTTGAT GTTAAATTAC TATATAATAT AANCAGTATG TGTTTTATA TATCATTGTG 180  
TAAATTAAT ATAACATATG CNGTAATAAN CCATTNGTNT TACGGGCAAA 230

SEQ ID NO:4212

LENGTH:161

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05005

SEQUENCE DESCRIPTION:

GATCTCAATC AAGTTAGCAT GCTTNCTCCA GCTGCCCTAT NACCTGCCAG CTCATCACAA 60  
AGAACCACGG CCACCCAGGT CATGGCAAAC TCTGCTGGAC TTAAC TTCAT CAATGTAGTG 120  
GGCTCTNTT GTGGGGCCCA GGCTTTGATG AGTNGGN N 161

SEQ ID NO:4213

LENGTH:259

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05006

SEQUENCE DESCRIPTION:

GATCGAGACC ATCCTGGCCA ACATGGTGAA ACCCGTCTC TACTAAAGAT AAAAAATTA 60  
GCTGGACATG GTGGCGGGCG CCTGTNTTCC CAGCTACTGG GGAGGCTGAG GCAGGAGAAT 120  
GGCTNGAGG CAGTAGAACT GCTTGAACCC TGGAGGCGGA GGTTACAGTT ATCCGAGGTT 180  
GTGTCATTGC ACTCCAGCCT GGGGAACAGA GCGAGACTCC ATCTCAAAAA AAATAAAAAA 240  
CTTCAGCTTT TGCATGAAA 259

SEQ ID NO:4214

LENGTH:71

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05007

## SEQUENCE DESCRIPTION:

GATCATGCTT TAAGGTTTAT GTAAAGAAAG TGTACTGATG TTCTTACATT AAAGCTTTAC 60  
 AAAGATTAA A 71

SEQ ID NO:4215

LENGTH:67

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05008

## SEQUENCE DESCRIPTION:

GATCTTGGTG GTAGTAGCTG TCTATGATTC TNGCTCAGCA AAGTAAAATA AATGTAAAT 60  
 ATGGAAG 67

SEQ ID NO:4216

LENGTH:143

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05009

## SEQUENCE DESCRIPTION:

GATCAATGA AATAATGTAC ATGAAAAGAC ATATATAAAA TGTATAATAC AGACAAAGGG 60  
 NCCTGTTACA CAGTTGGAAG TCATNCCCTC AGATTTTGGG CCTAGGAAGG TAGGTGATTT 120  
 AAACCTACTG AAAGCANNNGN NNN 143

SEQ ID NO:4217

LENGTH:362

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05010

## SEQUENCE DESCRIPTION:

GATCACAGCC ACTGGTCCAT AACAATTAGG AAAACTCATT GGACAATGGT TGTCAGGTTC 60  
 CTCCATTGGA GGAATTGTG TTTCATGATT AGGCACTGTT TCTGCTCCTT AAAAATGACT 120  
 TTCCAGTCTA TCCTCCACAG CTCTTTGTTC TACTCTCTAG GGAATCATT TTTTCCCTC 180  
 ATCTTCCTTA GTCACCTTGCA AAGGACATTA GAGAATATGC CCTTTTGGT GGATAAATGG 240  
 GTTCTTCAAC CTGCTTTCTG CCTGTAGAAA ATTAGAGGCC AATAATCTGT TTATATCTTG 300  
 TAGAATGTCT ATTTTAGCTG GTACCGGTAC TTTGTCAAT AAAGTCTTT TTAAACTTA 360  
 AA 362

SEQ ID NO:4218

LENGTH:213

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05011

## SEQUENCE DESCRIPTION:

GATCTGNAA GAGCACATAT GTGTCAGGGC ACAATTCCCN CTCATAAAAA CCACACAGCC 60

TGGAAATTGG CCCTGGCCCT TCAAGATAGC CTTCTTTAGA ATATNATTTG GCTAGAAAGA 120  
 TTCTTAAATA TGTGGANTAT GNTTATCCTT AGCTGGAATA TTTNCTCTAC TTCCTGTCTG 180  
 CATGCCCNAG GCTTCTGAAG CAGCCAATGT CGN 213

SEQ ID NO:4219

LENGTH:169

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05013

SEQUENCE DESCRIPTION:

GATCACTACA ACANTTTNTT TGCCTCCAAG GTCCTCTGAG GCAGCAGGCT CTGGGGCTTC 60  
 TNCTGTCTT TGGAGGGTGT CTTCTGGGTA GAGGGATGGG AAGNAAGGGA CCCTTACCCC 120  
 CGGNTCTTCT CCTGACCTGC CAATAAAAAAT TTATGGTCCA AGGGAGAAA 169

SEQ ID NO:4220

LENGTH:235

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05014

SEQUENCE DESCRIPTION:

GATCGCGCAG GATTTCAAAA CCGACCTGAG GTTTCANAGC GCANCATCGG TCGCTGCAG 60  
 GAGGCTAGCG AAGNANCCTG GTGGGTCTGT TCGAAGATAC CAACCTGTGT GCCATCCACG 120  
 CTAAGAGAGT CACCATCATG CCCAAAGACA TCCAGTTGGC TCGCCGGATA CGGGGAGAGA 180  
 GAGCTTAAGT GAAGGCAGTT TTTATGGCGT TTTGTAGTAA ATTCTGTAAA ATAAA 235

SEQ ID NO:4221

LENGTH:196

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05016

SEQUENCE DESCRIPTION:

GATCAAAGTC CTACAGTGGC TGTCACGCAG CCACNAGGTC ATCTCCTTTC ATCCCCACCC 60  
 CAAGGCGCTG GCTGTGACTC TGCTTCCTGC ACTGACCCAG AGNCTCTGCC TGTGCATGGC 120  
 CAGCTGCGTC TACTCAGGTC CCAAGGGGTT TCTGTTTCTA TTCTTTCCTC AGACTGCTCA 180  
 AGAGAAGCAC ATGAAA 196

SEQ ID NO:4222

LENGTH:262

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05018

SEQUENCE DESCRIPTION:

GATCTGCACC AGACTGTTAC CTTCTGGGGG AGATGGAGAT TTGACTGTTT AAAAAGTGAA 60  
 AACAGCGAGG AGTCTTTCTA GAACTTTTGA AACTAAAAG GATGAAAAAA ATTAGCAAAC 120  
 CGAAGTTTCT TCAATGACCC CTCGAGAACT TTGGGACCAG TTTCCTATGG GGGACTCAGT 180

TTCAGAGAAC TGAGACAGAA GCTCTTCTGT CGTTATATTC TTCTTTCCTT TTTTGGATT 240  
TATTAAATAT TTTCTGTGGA AA 262

SEQ ID NO:4223

LENGTH:277

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05019

SEQUENCE DESCRIPTION:

GATCCTGCAG TGTCTGTGG GTTCATCTCG GATGGGCGCT GCATAACAG CCTGCAGGGA 60  
ACGTCTGGGA GAACCAGCTT CACAACAGAT ATAATAAGGA AGAAGTTGA AATATTGCAA 120  
GANTTGGCAA AGTGTGACAC ACAGATACAA AGTGGGCACA TGCTCGTGGG AAAATGTTGC 180  
CAATAGACTT GCTTGACTCT GGAGTTACCC CGAACCTTCA ATTTGTTAA AAAAAAAAAA 240  
GGGCANTTN TTGNNNGCA NTAAGGTGNC CTGCAA 277

SEQ ID NO:4224

LENGTH:271

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05021

SEQUENCE DESCRIPTION:

GATCGCGTCC ACCTTCATCG CTGTGGTGCA AGCCATCGTC CGCACGGCTG GTGGCTGGGC 60  
AGCTGCCTCG GACTCCAGGA AAGGCGGGGA GCCTGCCGGC TACTGAGTGC TCCAGGAGGA 120  
CAAGGCTGAC AAGCAATCCA GGGACAAGAT ACTCACCAGG ACCAGGAAGG GGAAGTCTGGG 180  
GGACCGGCTT CCCCTGTNAG CAGCAGAGCA GCACAATAAA TNAGGCCACT GTGCCAGGNT 240  
CCAGGTGGCC TNCCTGGNCT GTTCCCCAA A 271

SEQ ID NO:4225

LENGTH:138

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05023

SEQUENCE DESCRIPTION:

GATCCACGGA AGACTGTCAG CAGACTTCAC CAGAAAATT TCACGCCAGA NGGCAGTCGT 60  
GATATATACA AAANGCTGAA AGGAAANCAC TGCCATCCAG GANTACTATC TCCAACNTC 120  
CTGTGTTTCA AAANTTAN 138

SEQ ID NO:4226

LENGTH:64

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05024

SEQUENCE DESCRIPTION:

GATCTGCATT TAAAAATATG GTCTTTGTTT TATATGATTA AATGGTTTGT TTTCATAGAT 60  
GAAA 64

SEQ ID NO:4227

LENGTH:296

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05025

SEQUENCE DESCRIPTION:

GATCCCGGCT GTTGGTGAGC AAAGAGCCCA GGCCCCTAGA GTGCGCATGT NCAGGCTCCG 60  
CTGTTAGANT CACAGCGGTT CAAATCCGGC ATCTGGTCGC TGAGTGGCCT CAGGCAGTGA 120  
CCACGCTCCC GGACCCAACC TTCAGCTTGC CCAAAGCAAT AATCTTTCCT AAAGAAGTGC 180  
TTGGNTGGGG ATGGTGGCTC ACGCTTGTA ATCCCAGTAC TTTGGGAGGC CAAGGCAGTC 240  
TGGGCAATAT AGTGAGGCTC CCATCTGTAC TAAAAATAAA AAAGTTAGGC GTGAAA 296

SEQ ID NO:4228

LENGTH:135

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05026

SEQUENCE DESCRIPTION:

GATCAGACCT CTCATGCTGT GGAGATGAAA AAGCCCTAAA GTTTATGTTT CTAATGTGTC 60  
ACAGAATAGG ACGATATGAT TCTACAACAT AATCAACTCC CTATTAAATT CTTAATGAA 120  
GATTTTTTTT TAAA 135

SEQ ID NO:4229

LENGTH:337

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05027

SEQUENCE DESCRIPTION:

GATCCTCTTT CTAGCATGAA TGAAGGATGC CAAGAATGAG AAAAAGCAAG GGGTTTGTCC 60  
AGGTGGCCCC TGAATTCTGC GCAAGGNATG GGCCTGGGGG AACTCAAGGG AGGGCCTAAA 120  
GCACTTGTA CTTTGAACCG TCTGTCTGGA GGTCAAGGCC TGTTGAAAG CAGGGGTAGA 180  
GGGGAGCCCT GGAAGCAGGG CTTTCCGGA TGCCTAGGGG TGGGCAGTGC CAGCCCCTCC 240  
TCACCACTCT TCCCCTTGCA GTGGAGGAGA GAGCCAGAGT GGATACTATT TTNATTAAA 300  
TATATTATTA TATGTTAATA AAAAANTCAT ATCCAAA 337

SEQ ID NO:4230

LENGTH:179

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05028

SEQUENCE DESCRIPTION:

GATCCTTCGC GAGCGAGTGA ACAAGAGGCG GGTGAAGGAG ATGGTGAAGG AGTTCACACT 60  
GCTGTGCCGG GGTCTCCATG GCACAGGGTA CACAGCTGAC TACTGAGGGG TGCCCCATC 120  
CCATCCACCC CTCTCTTCA TCCTCCCTA TTCCCAAAGN GTAAACCTGG NCCCTNAAA 179

SEQ ID NO:4231

LENGTH:207

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05029

SEQUENCE DESCRIPTION:

GATCGCTGGA CGCTATGAGA GGGCGTCCCA GGGCCCAGCC TCCCACAGCC GTTTCAGCAG 60  
GGACAGGGGC TGAACAGGCC CTATTCCAGC CCCCTTGCTT CACTCTACCG GACAGACGGC 120  
AGCAGTCCCA GCTCTGGTTT CCTTCTCGGT TTATTCTGTT AGAATGAAAT GGTCCCCATA 180  
AATAAGGGGC ATGAGCCCTT CCTCAAA 207

SEQ ID NO:4232

LENGTH:386

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05030

SEQUENCE DESCRIPTION:

GATCTGAAAT AGTTTTCTTC CACTACATTG TTGAAATCAA TGAAGCAATT AGTTTCTCAT 60  
TCAGAAATGT GCACACTAAT ATTTAGTTTT GCTTCTCGT GGATAATATT AAGCNCTTAC 120  
TCTGCAGTTT CCTGGAAGTT GTGTCAACTG CAGTGATACT ATTCAGGATG GTGGGAAATC 180  
CCCAAAAATA TGTATGTGTG GGCTTGCTTA GATTACTATA TTTCATAGTT AATCTTTTGT 240  
CTCTTGCGGT GCTCATGATG TGTGGGGCAC ACGGAAGGCA TTGCTGTAGT CAGTCATTTT 300  
GGTTTTCTTC TATAGCCATT TTATTATTTT AGTGTATTAG TTATGAAGAT AATATTNNCT 360  
ATTTGTAAAT NGCTACTTTG TATTTN 386

SEQ ID NO:4233

LENGTH:356

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05031

SEQUENCE DESCRIPTION:

GATCTTCANA TTGCTGTGAT TAATGCATCC AGATTNTTTT CCTAGTATTT CCAGGTTAGA 60  
ACCTGTGGAT TGTTTCANTT GCATATAGCT TGGTTTCCAT AACATAGAGC ATTGGTTGAC 120  
TGTTTACAGA AGACTCACTC ACCAGGATAA ACATTGCNGT ATGTNACAGT AAAGCTATCT 180  
GGAGAGANCA CATAAATGAT TTTGGCATA CATTAGAGAA ACCATTTGTA AACTCAAAT 240  
GNCCACATAA NGCTTATCAG GGGGTCTAGA TTGGTNTTGT NNTATACCAT ATGGGATGAN 300  
GNAAANTAGA AATGTCAGTA GAACTCATTG AGGGTGCTCT NGCCAGCTGC NGANAN 356

SEQ ID NO:4234

LENGTH:105

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05033

SEQUENCE DESCRIPTION:



GATCTGCTTT TTTNAAATGT TAAGGACATA TTTTNAAGTT ACTGCTGAGT GAAGAAAGAA 60  
 CATAGCTCCC CCTCATTCCC TGCCTAAGAA AGGAGCTTAA AGAAA 105

SEQ ID NO:4235

LENGTH:343

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05034

SEQUENCE DESCRIPTION:

GATCAGGGCC TTCCTGCCTC CCGCTGGGCA GGTCTGGCCT TGCNCTCTTG GCAGGGCCCC 60  
 AGCCCTCTA ACCACTCTGC AGCTCACCAT GCAGCTGATG CCAAANTTGT GGTGTCCAGT 120  
 GTGCAGCAGC CCTGGGAGCC ACTGCCACCT TCAGAGGGGT TCCTTGCTGA GACCCACATT 180  
 GNTTCACCTG GCCCCACCAT GGCTGCTTGC CTGGCCCAAC CTAGCGTTCT GTGCCATGNT 240  
 AGAGCTTGAG CTGTTGCTCT NCTTCAGGGG AGGAAATAGG GTNGAGAGNG GGAAGAGNNT 300  
 TNGCTCTAA GTGTTGCTGC TGTGGCTTTT TTTGCCCTCT GCN 343

SEQ ID NO:4236

LENGTH:370

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05035

SEQUENCE DESCRIPTION:

GATCATTCA AAACCTATTT CCTATGTAAC TGCATTGAGA ACTGCATATG ATTCGCTGAT 60  
 ATATGTGTTT TTCACATTTG CGAATGGTTC CATTCTCTCT CCTGTACTTT TTCCAGACAC 120  
 TTTTTGAGT GGATGATGTT TCGTGAAGTA TACTGTATTT TNACCTTNTT CCTTCCTTAT 180  
 CACTGACACA AAAAGTAGAT TAAGAGATGG GTTTGACAAG GTTCTTCCCT TTACATACT 240  
 GCTGTCTATG TGGCTGTATC TNGTNTTCC ACTACTGNTA CCACANCTAT ATTATCATGC 300  
 AAATGCTGTA TTCTTCTGTT GGGTGGAGAN AAAGGATTTC TTGNAGGTTT NGTTTTTAAA 360  
 ATTNAAAGCN 370

SEQ ID NO:4237

LENGTH:529

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05037

SEQUENCE DESCRIPTION:

GATCTGTTTC GTGCATTGGA AGACCCACCC CAAGCTTGGC AGNCGAGCNN ATTGTATCCT 60  
 GGGGCTCCCT TCATCTCCAG GGAGTCCNNT CCCCGGCCCT ACCAGCGCCC GCTTGGCTGA 120  
 GCCCCTACCC CACACCAGGC CGTCCTCCCG GGCCCTCCCT TGGAAACCTG CCCTGCCTGA 180  
 GGGCCCTCT GCCCAGCTTG GGGCCAGCTG GGCTCTGCCA CCCTACCTGT TCAGTGTCCC 240  
 GGGCCCGTTG AGGATGAGGC CGCTAGAGGC CTNAGGATGA GCTGGAAGGA GTGAGAGGGG 300  
 ACAAACCCA CCTTGTTGGA GCCTGCAGGG TGGTGCTGGG ACTTAGGCCA GTCCAGGGG 360  
 CAATGTATTG GCCTGGAAGG TGGGGTTTGG GATTNNGGG GCTTGGTGCC AAGCTTTCCT 420  
 TTTNNANGNT GACCTTTNTT TNGTNCCTNC CCCTTTGGGG NGGGNTNAAA AGNCCCAAGT 480  
 TTGANANTGG GAAATAAANT TTTTTGGGC CTCCGGNTTT CCCTTNAAA 529

SEQ ID NO:4238

LENGTH:365

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05039

SEQUENCE DESCRIPTION:

GATCGTTTTC TGATTGTAT GCTTCACAAA CTTGGATTG ACAAAGAAAA TGTTTATGNN 60  
NGAATTGCGA CAGTGTATTC GCAACTNTCC TCAGTTCAGA TTTGACTGGT TTCTTAAGTC 120  
CAGAACTGCA ATGGAGCTCC AGNGGAGATG TAATACCTTA ATTNCTTTGA TTGAAAGAGA 180  
AAACATGGAA CTAGAAGAAA AGGAGAAGGC AGAGAAAAAG AAACGAGGAC CAAAGCCTTC 240  
ANCACAGAAA CGTAAATGG ATGGCGCACC TGATGGTCGA GGTAGAAAAA NGTGGCTGGA 300  
ANCTATGNNT ATGGTTTTNT TTCATAATC ACTNAGCTT ANACCNAGTA GTTCCTNTNA 360  
NTTTN 365

SEQ ID NO:4239

LENGTH:114

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05040

SEQUENCE DESCRIPTION:

GATCATTACA ACANTTGTNT GCCTCCAAGT CCTTGAGGCA GCAAGTCTGG GGCTTCTGTN 60  
TCNTTTGAGG GTGTCTTCTG GGTAGAGCGA TGGGAAGGAA GGACCCTTAC CCNN 114

SEQ ID NO:4240

LENGTH:312

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05041

SEQUENCE DESCRIPTION:

GATCATCCGC GCGGCCCGGG CTCGTGGGGC GCCTGGAGTG AGGGTTCTGG TTCCCGCCGG 60  
CGAGGATTGT TAAATNAGT CTTCGGAAGN AGACCCCTAG TGACTTCTTA AAGCAAATCA 120  
TCGGACGACC AGTTGTGGTA AAATTAAATT CTGGAGTGGT TTATCGAGGG GTCCTGGCTT 180  
GCCTGGATGG CTACATGAAT ATAGCCCTGG AGCAGACAGA AGAATATGTA AATGGACAAC 240  
TGAAGAATAA GTATGGGGAT GCATTTATCC GAGGAAACAA TGTGTTGTAC ATCAGTACAC 300  
AGNAGAGACG GN 312

SEQ ID NO:4241

LENGTH:306

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05042

SEQUENCE DESCRIPTION:

GATCGGAGTA CANAGTNACA NTTGGAGGGC AGGGGGACTN TAAGGCAAGG AGATTACAGT 60  
TGGGAAGGAG GCAGTGGCAG AGGGGTGAGG GACAGGGGCC CTTAAGTCCA GCGAGGAAAG 120

CTCGGTGTGG GCCCGTCTAC GCTCCGTTTG GGGTGACCTG GAACGCCTCT TCTACAGCTC 180  
 CTNCAGCATC AGCAGCCTCT TGTCAAGTTT TGCCTCGCCC ANTCTATCCC AACCCAAATA 240  
 AGACACTTTC TTCACGNCAT ATTATCTTTG TCCTTTCTTT TTTAAGAACA TCACAAAACC 300  
 ATGAAA 306

SEQ ID NO:4242

LENGTH:287

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05043

SEQUENCE DESCRIPTION:

GATCTTAAAC CCAGTCTTGA CAGACTAGAA GTTAAGTTA ATACAGAAAA TGTCCTGTTC 60  
 ACTTGAAAGA AAAGACCTAC TTTTAAATG GACACTATCT TGGTTCTTTT TTTTAAAGTC 120  
 ATCTTTTGT TATAAGTGAC CTTTGTCTGG AATGTCTGAA AAGTAGTTAA TGCTTTTNGG 180  
 TATTGAAGTA ATGGGTAACT AAAATGGACT TCCATAGTAT TGAAGTGA AGGAGCCTCT 240  
 ACAATATTGA CTATATATNN NNATAAACTA CTGGCAAGGN ACTTAAA 287

SEQ ID NO:4243

LENGTH:324

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05044

SEQUENCE DESCRIPTION:

GATCTCCACT GTTGGGTGGG TGGGCCCTGC CGGGACCCTG CTTACAGGC AGGCTTTTCC 60  
 TCCAACCTGT GGCCTGCAG CAGGGCAGGA AGGGGAAACA CAGCTGATGA ACTGTGGTGC 120  
 CACATGACCC TTGTGGCACA GATGCCACG TATGTGAAAC ACACATGGAC ATGTGTCCCA 180  
 GCCACAGTGT TATGCTCTGT GGCNNGCTCA CCTTTGCTGA GTTCCGGGGT GCAATGGGGG 240  
 AGGGAGGGAG GGAAAGCTTC CTCCTAAATC AAGCATCTTT CTGTTACTTG ATGTTCAATA 300  
 AAAGAATAGT TGGCAAGGCT GAAA 324

SEQ ID NO:4244

LENGTH:65

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05045

SEQUENCE DESCRIPTION:

GATCATTCAT ATGTGTACAT AAAATTTTAA AAATAAAGGG AATTGACTGC TTTGTTAATG 60  
 AGAAA 65

SEQ ID NO:4245

LENGTH:288

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05046

SEQUENCE DESCRIPTION:

GATCCAGAGA ATGAATCCCT GACCGCATCA CCTAACTGT CTTCCAAACA TGAGACAAAG 60  
 CTGACTGTTC ACACTGATTG CCCAGCACAT ACCGTCTTGC CAGTTTCTTC TTTTCTCCA 120  
 GTCTCCTGTT CATCCATTCT GTTCTCCCTT GGGGTGGGAA TCTATGATGG AGGTTACTGG 180  
 GGAAACAGCT CAGCAGATTT TTGGAGACCA AACCAAAGGT CTCACTAGGA AATTTATCTG 240  
 TTTTAAACA TTGCTTCCTT CCTGGCTCTG CTAAATTGAA TGCTCATN 288

SEQ ID NO:4246

LENGTH:333

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05047

SEQUENCE DESCRIPTION:

GATCTCTGCT CCTAACGATG AAGACTGGGC CTATTCACAG CAGCTCTCTG CCCTCAGTGG 60  
 TCAGGCGTGC AATTTTGGTC TGCGCCACAT AACCATTCTG AAGCTTTTAG GCGTTGGAGA 120  
 GGAAGTTGGG GGAGTGTTAG AACTGTCCC AATTAATGGG AGCTCTGTTG TTGAGCGAGA 180  
 AGACGTACCA GCCCATTGG TGAAAGACAT TCGTAACTAT TTTCAAGTGA GCCCGGAGTA 240  
 CTTCTCCATG CTTCTAGTCG GAAAAGACGG AAATGTCAAA TCCTGGTATC CTTCCCAAT 300  
 GTGGTCCATG GTGATTGTGT ACGATTAAAT TGN 333

SEQ ID NO:4247

LENGTH:288

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05051

SEQUENCE DESCRIPTION:

GATCCTCCAC AGAGAGGAGG GGACCAATTC TGGACAGACA GATGTTGGGA GGATACAGAG 60  
 GAGATGCCAC TTCTACTCA CCACTACCAG CCAGCCTCAG AAGGCCCCAG AGAGACCCTG 120  
 CAAGACCACG GAGGGAGCGA CACTTGAATG TAGAATAGGC AGGGGGCCCT GCCCCACCCN 180  
 ATCCAGCCAG ACCCCACGNT GACCATGCGT CAGGGGNCTA GAGGTGGAGT TCTTAGCTAT 240  
 NCTTGGCTTT NAGAGCCAGC CTGGNTCTGN CCNCTCCNC CATGGGGN 288

SEQ ID NO:4248

LENGTH:170

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05052

SEQUENCE DESCRIPTION:

GATCTCTAAG TGACCACCAG GGGCTCTGAA CTGCAGCTGA TGTATCAGC AGGCCATGCA 60  
 TCCTGTGCC AAGGTTGGAC ACGCTGCAG ACTTCTGGGG GAATTGTCG CTCCTGTCT 120  
 TTTGTTACTG AGTGAGATAA GGTGTTTCAA TAAAGACTTT TATCCCCAAA 170

SEQ ID NO:4249

LENGTH:136

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05053

SEQUENCE DESCRIPTION:

GATCTACATA GATTGGAAA CTGTTTCCT CTGTTTGGT CTCTGGGCA ACATTTTGG 60  
CCCAAGTTTG GGCAACATT GGCCCAAGNT TGGGCATTT GGCAGTAGCT GTATGGNAGA 120  
AAAAGAGTAA GAGGAN 136

SEQ ID NO:4250

LENGTH:100

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05054

SEQUENCE DESCRIPTION:

GATCNTTTGC TTTAGNGTGT AAAGTNTGTC TCTGAACAGA ATTATTTGTA AAAGTTAGGA 60  
GTCTTTTTT AAATCATTAA AAGAGGCTTG NTGAAGGAAA 100

SEQ ID NO:4251

LENGTH:204

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05055

SEQUENCE DESCRIPTION:

GATCCTAGAG CCCTTCACTT CGGNTTACTC CCTCTTTTT GCCTCTNTT NNTAGTTGGA 60  
AGAAATAAAC TCACAAATTA TGGTGCAGTA ATTNCCGGG GAAAGTAAAG CCTCAGGAAT 120  
GCCCACGCCT TTTTCCAAA GCCTTNTCT CTGAGACCTC TTAAGTTCTA AGATTAAATG 180  
CCCCTCGCTG TTTCTCCTCT GAAA 204

SEQ ID NO:4252

LENGTH:310

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05056

SEQUENCE DESCRIPTION:

GATCAAGGAG CAATTATGAA GGTCTACAAG CAAGANCAAG AGGAAGAATT ATNGAAAAAG 60  
TTGGCAAATG NCCCCAGATG GAAGAGATAC AGGAGATGGA TGAAGAATGA AGGGCCTGGG 120  
CGGTTAACAT TTGTGGATGA CTGANGATTG ATGGAATGCT ACTATGCCAA ACCTTAATTG 180  
TGATATTATT TTCATAACTG ANTTATTTTA GAAATGTATC ANTNGACTGC TGCTCAGCAG 240  
TAACTAAAAT TCCTCAAGTA TTTGATTAAA CAGATTAATG TCAAANTTTA AACCTTCCCT 300  
TAAACTTTN 310

SEQ ID NO:4253

LENGTH:267

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05058

SEQUENCE DESCRIPTION:

GATCTAATTG CATTGGTTAA AAGCAGCTAA CCAGGTCTTT AGAATATGCT CTAGCCAAGT 60  
 CTAACCTTTAT TTAGACGCTG TAGATGGACA AGCTTGATTG TTGGAACCAA AATGGGAACA 120  
 TTAAACAAAC ATCACAGCCC TCACTAATAA CATTGCTGTC AAGTGTAGAT TCCCCCCTTC 180  
 AAAAAAAGCT TGTGACCATT TTGTATGGCT TGTCTGGAAA CTTCTGTAAA TCTTATGTTT 240  
 TAGTAAATA TTTTTTGTTA TTCTAAA 267

SEQ ID NO:4254

LENGTH:307

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05059

SEQUENCE DESCRIPTION:

GATCANAAC CAAACGGGCC GGNNTTCTA AGGTGTNGGT ATGTGGGGAG TGGTACAAAA 60  
 TGGTCTGATG CTCCTTCAAA AACATTCCT TTTTACAACG TCAAGGAATT AAGCATAAAA 120  
 AAGATTGGTT AAAAGCTTG GTTTCTAGTA AAGGTAGTG TGTGTGGTTT TTTTAAGAAG 180  
 CTGTNTTGCT AAATNATTTT TACTTGGAAT GTTTCAAACA GATTTCAAGC TGCAAACCTG 240  
 TTTNATAATC GTNNGCTTCT CCAAGTGAAG CTTCAAGGAAT ACCTGGAAAA TAGCTGTAAC 300  
 GTTCGCN 307

SEQ ID NO:4255

LENGTH:297

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05060

SEQUENCE DESCRIPTION:

GATCTAATAA AAATTGAAAT ATGCCTTTTA GAATGGCTTT CAAAGATAAC AAATGCTGGA 60  
 GAGGATGTAG AACAACTGGA ACCTCTCGGT TATTGCTGGT GAGACAGCCG CTTTGAAAAA 120  
 GTTTGAGTTT CTTACAAAAT TAAACTTACA CTTACACTTA CCATATGACC CAAAAATTCC 180  
 ACTGCTTGCT CTTTACTCAA GTATAAGGAA AATCTATGTA CACACAAAAC TNGTACGTGA 240  
 ATATTTATTA ATAGTCATTT TATGCCCCAA ACTAGNAATA GTCCAAATGT TCTGGGN 297

SEQ ID NO:4256

LENGTH:208

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05061

SEQUENCE DESCRIPTION:

GATCTNTATT NTTTTNGCAA CAGACTTCAA GTGGTCCCTC TTTTTCCCT ACACACTCAG 60  
 CTCTTCTCTA AAAGCAAGGA TTTGGAATGA NCAATTCAGT TTGACAGAAA AAGCTGAATA 120  
 AAATGGCATC TGTAATTGAN TTGTGGAAA TGCCTTTTGN GCTCCTAAAT NTTAAACATC 180  
 ATTAATAAAA TANTGTTTCA CAAAGAAA 208

SEQ ID NO:4257

LENGTH:208

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05062

SEQUENCE DESCRIPTION:

GATCACAGGA AGACTTTGTA AGGACAGTTT AAGTTCTCCT GCAAGGTTTA ATTTGTTATC 60  
 ATGTAAATAT TCCAAAGCAG GNTGCCTTGT GGTTCCTGGCC AGCCTTGTGC TATGTTGATA 120  
 AGATTGATTT ACTGCTTAAA ATCACTTTAC TTTATCCAAT TTTTACTGAA CTTTTTATGT 180  
 AAAAAAATAA AATCAATTAA AGAACAAA 208

SEQ ID NO:4258

LENGTH:126

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05063

SEQUENCE DESCRIPTION:

GATCAGTTT CTATTTTAAT GTGTAAAAA AATAACTTGT CGTATCCCAT TTAAAGGCCA 60  
 ATTTCTGTAT TCAGGCAGGC ATATGTACAT ACATGAATAA AGCCAACAAA AGTGTGCACA 120  
 TGTAATA 126

SEQ ID NO:4259

LENGTH:552

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05064

SEQUENCE DESCRIPTION:

GATCGGGTG CCCCTCAGCC TTCAGACACT CTGAGCCCCA GANGCAGCAA AGGGTGAGCC 60  
 TCCTGCCCTG GTTCTACCA CCATCTGGTG GTCAATGGCG GGACTGCAGT CGGCCAGGGA 120  
 CTGCGGTTGA CCTACACCTT CCTCCCCTGA GACATCAGCT GGCATGCCCT CAAGCCCTCT 180  
 GCGCATGCCC TCATTCTCTC CTGCCCCCTG GCTGACTTTG CATGTTGACT TGAACCCCTC 240  
 TGGGGAATCT NTGTGCATGT CCACAGCCCC TGGTTATGCT CTCACAGCCA CTGCCCCTNT 300  
 CTNTGTTTCTG GCTGAGCTGG CTGACCGACC CAATCCCNCT AACCGGCCCTC TGCCCGNTGA 360  
 NCCGGTGGTT GAGAAGCCCG AAGTCTNAGG GGGCCAGCAA GGCCCCAACC NCAAGGNAGG 420  
 CAATTGCTTG CNCGACCCCA AGGGGNCGGN TNGCCAATGG GGGTGNACTT TGCCGGGCCA 480  
 AAGGGGNTNN GAATTTCCGG CNCTTAAGTN GTNACCCTTC AANANNAANG GGGCAAACGG 540  
 GTTTNGNAAA AN 552

SEQ ID NO:4260

LENGTH:180

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05065

SEQUENCE DESCRIPTION:

GATCAGACCT TCTTGGGGTC TTCTGGCCAG AGCTTGTCAC CAGCCCCATG GCCTCTCCAG 60  
 GCGTGCTCAT GCCACAACC CGCGGCCAGC CCCACGTGGT GCCGCTCAGC CTTCTCTGCC 120  
 CCTCCTGGGA ATCTGTCATT CGTGGGTGCT TCAGAGTAAA ATCAATGAGT TTCTGAGAAA 180

SEQ ID NO:4261

LENGTH:553

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05066

SEQUENCE DESCRIPTION:

```
GATCAGCGTG CGGGGTGTGA AGATAGGCGT CAAGGCCGAT GACTCCCAGG AGGCCAAGGG 60
GAATAAATGT AGCCACTTTT TCCAGTTAAA AAACATCTCT TTCTGCGGAT ATCATCCAAA 120
GAACAACAAG TACTTTGGGT TCATCACCAA GCACCCCGCC GACCACCGGT TTGCCTGCCA 180
CGTCTTTGTG TCTGAAGACT CCACCAAAGC CCTGGCAGAG TCCGTGGGGA GAGCATTCCA 240
GCAGTTCTAC AAGCAGTTTG TGGAGTACAC CTGCCCCACA GAAGATATCT ACCTGGAGTA 300
GCTGTGCAGC CCCGNCCTTC TTGGGGTCCC CCCAGCCCCT NAGGGCCAAG TTGCCAGGGA 360
CAAGCTTGGC TTGCTGGACA AGGGATGTTG GCAACTTGNT TTNAGGGAGG GGGGCAACTT 420
GNCCAACCGG CCANNNGGNN CAAAGGGAAA GTTNGGGGGG NCCCGTTTGG NCCAANGGGT 480
TAGGGGGAAG GGGTTGGGGG GNAATTNGGG GNGGNGGGG AAATTTNCNA GTTTTANTTG 540
TTAATTTTTT AAA 553
```

SEQ ID NO:4262

LENGTH:314

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05068

SEQUENCE DESCRIPTION:

```
GATCTCCCGG ACCCCTGAGG TCANATGCGT GGTGGTGGAC GTGAGCCACG AAGACCCTGA 60
GGTCAAGTTC AACTGGTACG TGGACGGCGT GGAGGTGCAT AATGCCAAGA CAAAGCCGCG 120
GGAGGAGCAG TACAACAGCA CGTACCGTGN GGTCAAGCGT CTCACCGTCC TGCACCAGGA 180
CTGGCTGAAT NGCAAGGAGT ACAAGTGNA GGTCTCCAAC ANAGCCCTCC CAGCCCCCAT 240
CGNGAAAACC ATCTCCAAAG CCAAAGGGCA GCCCCGAGAA CCACAGGTGT ACACCCTGCC 300
CNCATCCCGN GACN 314
```

SEQ ID NO:4263

LENGTH:176

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05069

SEQUENCE DESCRIPTION:

```
GATCCAGGGA ACAATGACTA TAGGTGAGCA GATGCTTTAA ATTAAGGAAA GATGGAGAAG 60
AAGCCAAC TA GGAAATTAGA GAACACAGCA AGCAAAGAGA AGCAAGCGAG TCCCCTTGAG 120
TGATGCCAAT ACTTTTTTTT TTTTTTTT NGANANATTT TNTNNCCANT NTGGTN 176
```

SEQ ID NO:4264

LENGTH:389

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05070



## SEQUENCE DESCRIPTION:

GATCTTTNAG GAAAGACGGA TTGCNTTAGA AATAGACAGT ATATTTTNG TCACAAGAGC 60  
 CCAGCAGGGC CTCAAAGTTG GGGCAGGCTG GCTGGCCCGT NATGTTCCCTC AAAAGCACCC 120  
 TTGACGTCAA GTNTCCTTCC CCTTTCCCA CTCCCTGGCT CTCAGAAGGT ATTCCTTTNG 180  
 TNTACAGTGT GTAAAGTGTA AATCCTTTTC NTTTATAAAC TTTAGAGTAG CATGAGAGAA 240  
 TTGTATCATT TGAACAATA GGCTTCAGCA TATTTNTAGC AATCCATGTT AGTTTGNAC 300  
 TTTCTGTG CCACAACCCC TGTTTTTAAT ACTGTACCTT TANTTAAATT TCNNGGTTNN 360  
 TAGTTTTTTG CAACAGGTTT TTTCCCAA 389

SEQ ID NO:4265

LENGTH:436

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05071

## SEQUENCE DESCRIPTION:

GATCACCATG AAAGAAGAAT AGTTTTTGT CCCAGAGAGC ATTCATTTAG TTGATATAAT 60  
 CCTACCAGAA GGAAAGCACT AAGAAACACT CGTTTGTTGT TTTTAAAGGC AACAGACTTA 120  
 AAGTTGCTCT CAGCCAAGGA AAAATGATAC TGCAACTTTA AAATTTAAAG TATCTTGCAC 180  
 TGATAAATAT ATTTAANANT TGTATGTTTA TAAAGTTATT AATTTGTNNN GNCNGTGTTA 240  
 CAAAATGTT AGTTTATATT GTTTTAGATT GTTTTGTAAT TTTTAAAGGT GTAAATAAC 300  
 ATATTTNTCC TTTATGNNNA TCTATAAAC TTTCTGGTAG TAAATGTTT TCATTTTAC 360  
 TGGGTATATT ATTTGCTTCC ATGNTTTTGT TNNCCNTCCA TAAGGNTTTN NTGCCAGNTT 420  
 TTTTTTTNN CAGGN 436

SEQ ID NO:4266

LENGTH:533

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05073

## SEQUENCE DESCRIPTION:

GATCTGTCCC CATCCGAAGA GGCTTTGTGA ACTGCCTGCT GAATGGAAGG AAAGCAACTT 60  
 TAAAACATTT AGAGTTTTGC TGAGTATAGC CAAATGCCTG TNCTGAACT TATAGGAAAT 120  
 TGGAATTTTG TTTAAATTT TACACTTTAA GGTAGCAAAT GTCAATTATT NGNCCGAGCA 180  
 TATTGTGAAG AATTAACTA AAATTAATAC GTACAGTTTT CTCTAATTAG GTGACTGTTT 240  
 ATAATGGGTA TATTGGAAT TTAGAAGAAA TAATTTGTGA GNACTTGTGG CCCTTATGTT 300  
 TAACAGATTA ATTCAGCATT GCGTATTTN CTTGTCCCA ATACAAGGAT GCCAAAGGAG 360  
 GGAAACAGGA AAAATTGCCG TCCCATTTT AAAAATTTA GGGGTTTGGN TGGTTTTAAA 420  
 CCCNTAAATT TGTTCCCAN GGANCNTTT TTTGGGGACC TTNCTAAATT TTTGGGGGN 480  
 CATTTTNAAN TTAAAGGNAT TGNNGGGNNC NAAGNNNGTN TTTGANTTN TGN 533

SEQ ID NO:4267

LENGTH:124

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05074

## SEQUENCE DESCRIPTION:

GATCAAGGAA GAGATGGAGG CTTTCCCCGA AAAGTTCTAG CTGAGTGGCA GAAGTGAGAA 60  
 TTTGTAAACT TATGTACAAT GTACGTGTAA ATAAATGGAT TGAATTCAG TTTGTCATCA 120  
 GAAA 124

SEQ ID NO:4268

LENGTH:451

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05075

## SEQUENCE DESCRIPTION:

GATCTGGGAC AGATTTCACT CTCACCATCA CCAACCTGCA GCCTGAAGAT TTTCCAACTN 60  
 ATTACTGCCA ACAGTATGAT AGTTACCCGC TCACTTTCGG CGGAGGGACC AAGGTGGAGG 120  
 TCAATCGANC TGTGGCTGCA CCATCTNTNT TCATCTTCCC GCCATCTGAT GAGCAGTTGA 180  
 AATCTGGAAC TGCCTCTNTT GTGTGCCTGC TGAATAACTT CTATCCCAGA GAGGCCAAAG 240  
 TACAGTGGAA GGTGGATAAC GCCCTCCAAT CGGGTAACTC CCAGGAGAGT NTCACAGAGC 300  
 AGGACAGCAA GGACAGCACC TACAGNCTCA GCAGCACCCCT TGACGNTNAG CAAAGCAGNC 360  
 TACGNGAAAC ACANAGNTA CGGCTGCGAA GTTNACCCCN TCAAGGGCCT TGAGCTTNGN 420  
 CCNGTCACAA AGGNGNTTN AAACAGGNGG N 451

SEQ ID NO:4269

LENGTH:197

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05076

## SEQUENCE DESCRIPTION:

GATCTAGAAA CTGAGTTGTG GAGCTGACTC TAATCAAATG TGATGATTGG AATTAGACCA 60  
 TTTGGCCTTT GANCTTTCAT AGGAAAAATG ACCCAACANT TCTNAGCATG AGCTACCTCA 120  
 TCTCTAGAAG CTGGGATGGA CTTACTATTC TNGTNTATAT NGNAGATACT GAAAGGTGCT 180  
 ATGCTTCTNT NATTATN 197

SEQ ID NO:4270

LENGTH:69

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05077

## SEQUENCE DESCRIPTION:

GATCCCATCC CCTTGTCTGA ACTGGAGCCA TGGGCACAAA GGGCCCAGAT TAAAGTCTTT 60  
 ATCCTCAAA 69

SEQ ID NO:4271

LENGTH:54

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05079

## SEQUENCE DESCRIPTION:

GATCTTGCCT CCCATCAGCC ATCTTTCTCC CAATAAATTT TTGTTTTGTG CAAA

54

SEQ ID NO:4272

LENGTH:103

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05080

## SEQUENCE DESCRIPTION:

GATCTAACCA ATTNAAATAT GANTTCATAC TCNAAAGTAT CAACAAAAAA ATGAAAAGAA 60

ATAGCTGGTT TGGNTGTAAG AAATGGTGTA ATTAATGGNT TTN

103

SEQ ID NO:4273

LENGTH:449

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05081

## SEQUENCE DESCRIPTION:

GATCACTGCT GGCCTACTCT GGTTACGGGG ACACTGACGC CCGGGTCACC GCTGCCATAG 60

CCAGTAACAT CTGGGCCGCC TACGACCGGA ACGGGAACCA AGCGTTAAT GAAGACAATC 120

TCAAATTCAT CCTCATGGAC TGCATGGAGG GCCGTGTAGC CATCACCCGA GTGGCCAACC 180

TTCTGCTGTG TATGTATGCC AAGGAGACCG TGGGCTTTNN NNTNCTCAAG GCCAAGGCC 240

AGGCTTTGGT GCAGTACCTG GAGGAGCCCC TNACCCAAGT GCGGGCATCT TAACGGCATT 300

GGTGGAAGCT GGGGGTCAGA AAAGAGAAAT GACCCATTG NGAGGGGCTG GGGGNCCTCC 360

TAGGAAGAAC CTTTNTTAGG ACAATGGGGG GNAAGGGATG GGACTTTTNN TTTTTTCCC 420

AAGNATTAAT ACTTNAACCT CCCTGTAAA 449

SEQ ID NO:4274

LENGTH:247

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05082

## SEQUENCE DESCRIPTION:

GATCTNCATA ANCAGGGTTC CTGAGCTCAC TGAAAAGACT ATTGTCCCTT AGGAAAAGCA 60

TTTCCTGTGT NTCGTNAGCA TCTGGCTCCA GGACAGACCT TCAACTTCCA AATTGGATAC 120

TGCTGCCAAG AAGTTGCTCT GAAGTNAGTT TCTATCATNC TNCTCTTTGA TTCAAAGCAC 180

TGTTTCTCTC ACTGGGCCTC CAACCATGTC CCCTTCTCCT NAGCACCACA AATAATCAAA 240

ACCCAAA

247

SEQ ID NO:4275

LENGTH:424

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05083

## SEQUENCE DESCRIPTION:

GATCATTTC CAAGATTGGT TTCCCTTGAG TTTTGCTAA AACAAATCTT AGTAGTTTGG 60  
 CCCGTTTAAA ACAACTCACA ATCGTAAATG CTACTATTCC TAAGATATCT NACCTTTTNA 120  
 TTTCAGTTTA GCCATGTATT GTATGAGTGT ATTAGTCTAA GCAGTGAGAA TCTTNTCTAT 180  
 GCCTCTATTC CAGCAAAAAG TAGAAGTATC AAATAAAANG GGCAACTTTT AAAATATTAA 240  
 GCCTGAAGAC TTCTAAAANG ACANGANACA TGGCCTAANT ANCCAACATA GGATTTACAT 300  
 AGTANGTTTC ACACTACCTT ATTACCAAAA GCAAACCACC TCTTACTTTT NNNCTACATT 360  
 TATCCATGTA TATCTNTNGT ATGCTGGTCT TTTNCTTTTT NGCCAAANTC NANCATTTTT 420  
 TGNN 424

SEQ ID NO:4276

LENGTH:308

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05085

SEQUENCE DESCRIPTION:

GATCTAAAC TTCTGTTGCT TTTGCCATT CAAAACCTTG TCTTTGCCAG AAAAGTGTG 60  
 GTAACATAA AGAAAATTAT ATATGANCAC GGCAGTTTGC ACTGTGTTG AGTAGAACGT 120  
 GTAAATGAAT TGTNCCCACC TTTGGTTTGC CAGTAAGTGA CTGGATTCTT GGCACATTA 180  
 TGTTACCAA AGTAGAACAA GAAGATATTA TTNCTATTTA TCAAGCAAAA GGAATTTTAA 240  
 GATTTTNTTT TTNCTTAAA ACCAANTTGG GATTTNNNN TTTNNTTTN TTTGGGGGAA 300  
 AAGGNTTN 308

SEQ ID NO:4277

LENGTH:374

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05086

SEQUENCE DESCRIPTION:

GATCGAGTCC GCCATGGAGA GGGACCGCTA CATGAGCCCC ATGGAGGCCC AGGAGTTTGG 60  
 CATCTTAGAC AAGGTTCTGG TCCACCCTCC CCAGGACGGT GAGGATGAGC CCACGCTGGT 120  
 GCAGAAGGAG CCTGTAGAAG CAGCGCCGGC AGCAGAACCT GTCCCAGCTA GCACCTGAGA 180  
 GCTGGGCCTC CTCTCCAGAN TCATGTGGAG GGGCCAGAGG CTGCCAGACC CCCAGCTGGG 240  
 CCCTGCTCAC CCCTTGTGTC TGGGCTTGA GGGGCCTNTT GAGGAACCTT TAATTTGCAG 300  
 GGGTGCCCGN TATGGACGGG GCATTNCAGC TGAGACACTG TGGATTTTAA ATTAAATCTT 360  
 TTGTGGTCTT TAAA 374

SEQ ID NO:4278

LENGTH:510

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05087

SEQUENCE DESCRIPTION:

GATCTGTGCT TTCCAGCTCA CCCCCACAC TCACTCCTGA GACCCCTGGC CTCCGGCGTC 60  
 ACNTCCAGCN TCTGTTCCCC TAGTAAGTGC CTTCCATGTC GGCCTCTAAC CCCAGGCCCC 120  
 GAGGACCCAG ACCCAGTGGG GAGGCGGACG TTCCAGCCGG CATGGNTGGG AACTGCAGAC 180

CTGTCCTCCT GGTGGGTCCA GGGGCCCTC CAGCTTGTGG AGCCCCACAN TGGGGTGCCG 240  
 CCTGCCCGTT TTTTCCCAT GGAGCCCAG CCCCCTTTGG GCCCAGGGAC ACCAGCCAGG 300  
 CTCTGTGCTG ACCCTCCTGT TGCACCCAGN CCTGGTNTCA GCAGCGACCA CCCCTTGCNT 360  
 TCACCCTTTG GAGCTTTTGC AATGTTTCCA NTAAANCCCN GGGNTGGGT NGGNAAGGTT 420  
 GGGAGGTTGT TAAGGTTGTT TNGGTGNCT TTTTGAAAGG GGNAGGATNA ATTAACCTTG 480  
 ANCCNNTGGG GCGGNGNGNC TTTTNGGNTN 510

SEQ ID NO:4279

LENGTH:466

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05088

SEQUENCE DESCRIPTION:

GATCTAGCTT GGAGAGCTTG TGAATCTTAG GAGAGCTAGG CATAGAATGA CTAAAGTTTG 60  
 TCACCGCATG AGATAAATA AATGAAAAGC CACTTCTGGA GGAATGAGG CAGTCTGCCT 120  
 TTNTGGAGA GATACATATT GTTGAACAGC TCTGGGCAGT TGATTGTTT CCTGGGAGAG 180  
 CTAACCATGT TTAATCTACA CTTGACCTGT GATGGTCTGT ATTGATTGTN TCACACGCTT 240  
 AGCTTTCTAA GGTAACCCAG GTCATCGTCC TCAGTCCCTG CCTGCAACTA GGTGCCAAC 300  
 TGGCCCTTGA TTTCCACCC AACTTGTTC GTTTGCCCTC AATCCTGGG CCTCACTNAT 360  
 TTCCCCAAA NGATATGGT TGGTACCACC TGATGTTNC CTGTTGCATG GTTAAACCTG 420  
 ACTTTTGGG GAAACTNAAA ATANAACANT TTTTCAAAAC GGGAAA 466

SEQ ID NO:4280

LENGTH:470

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05089

SEQUENCE DESCRIPTION:

GATCGAGCCA CTGCTGAAGA ATGTCTAAAG CACCCCTGGT TGACACAGAG CAGTATTCAA 60  
 GAGCCTTCTT TCAGGATGGA AAAGGCACTA GANGAAGCAA ATGCCCTCCA AGAAGGTCAT 120  
 TCTNTGCCTG ANATTAATTC GGATACCGAC AAATCAGAAA CCGAGGAATC CATTGTAACC 180  
 GAAGAGTTAA TTGTAGTTAC TTCATATACT CTAGGACAAT GCAGACAGTC TGAAAANGAG 240  
 AAAATGGNGC AAAAGGCCAT TTCAAACGA TTAAATTTG AGGAACCTTT GCTACANGAN 300  
 ATTCCAGNG ATTTTATCTA CTGAGCAATA TTTCCCTTN GAACTTCAAG ATTTCTNCAC 360  
 TGNANAATTN TTAATNTTN TTTTTTGGG GCCCTCTGGG CCAAATTGGN GNCATGTTCC 420  
 TTTGNAGGTG GGTAAACCA GTTNTCACT TNCACCAGTC CANNTNTTN 470

SEQ ID NO:4281

LENGTH:476

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05090

SEQUENCE DESCRIPTION:

GATCTACAGT CACCATATAT ATCAGCAGGA CCTAAGGNAA AAGATTTTGG ATGTTGGGAA 60  
 AAGGTTAGAT GTGACTGGAT TTTGCATGAC AGGNAAGCCT GGTATAATCT GTGTGGAGGG 120

TTTCAAAGAG CACTGTGAGG NGTCTGGCA CACAATTAGG TACCCCAATT GGAAGCACAT 180  
 TTCCTGTAAG CATGCTGAAA GCGTGGAGAC AGAAGGAAAT GGTGAGGACC TGCGCCTTTN 240  
 CCATTCTTTT GAAGAGTTAC TCCTTGAGGC TCATGGTGAC TATGGATTAN GGAATGACTA 300  
 TCACATGANT CTGGGCCAAT TCTTAGAATT TNTCAAGNTG CACAAAATTT NAGGCATGTT 360  
 TTTTCCNGT TACTATTTTG GGTNTTNTNA AGCAAAAANT TTCAGNCTTC NTAAAAAGCG 420  
 GNTTAAAGGG GGNCTATTG NCCTGTNAAT TTTCCACTNA GGNCAGGTNT TTCTTN 476

SEQ ID NO:4282

LENGTH:277

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05092

SEQUENCE DESCRIPTION:

GATCTGAATT GTNCGAAAAG CAGCCAGTGC CTAANTTGTA GCTCCACTTA TGCCAACTGT 60  
 ATATATACCT. CTCGTAGCA TAGCAAGTNA TTTANTATTT TNAAGATG GCTAAAATCC 120  
 TTTTAATGAA CAGCACTAAA GTTATATGTA TTAGAGGAGA ATTATTGANT GANATGGAGA 180  
 AAGAGTTCTG AAATTANTAT TTNCATTGG GCTTTTTTAC AGATAATATT ATATNNCTAA 240  
 GTGACCAGAC GAAAGAGAAG GGNGTAGAAA AGGNTGN 277

SEQ ID NO:4283

LENGTH:314

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05094

SEQUENCE DESCRIPTION:

GATCCCCAGA CCTCACTTGC CTCTGCCTCC ATCTTGGCCC TGATTCAACC CTAAGATAAT 60  
 AGCACAACAA AATTCTNCAT AAAGATATTT TAATCACCT GTNCCGTGCT ATATGGAGGA 120  
 GGCCAAGTCC ATTTAGTGAC ATTNCTNCCC ATAATGTGAG TGGGGAGGAT TGTGGGAGG 180  
 AGGGGCTTTG GGTTCCTGTG TTTGTGCATA TGAAGGGAGA TGGGGGTTAG GTGGAGGAGG 240  
 AGAGCAGCGT GGTTAGCTAA GGTTATTGCT TTTTGTGGCA AATCTAATTA AATGACAGGA 300  
 ATCTCTTCAC GAAA 314

SEQ ID NO:4284

LENGTH:489

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05095

SEQUENCE DESCRIPTION:

GATCTTCATG GAGCTGAATG ACGCCTGGTC GGAGTTTGAG AACCAGGGCT CNCGGCCCCT 60  
 CTTCTGAGGC CGCAGTGGTG GTGGCTGCGC ACACAGCTCC ACAGGTTGGG AGCCGTCGTG 120  
 GGACCTGGGT CCCCACCGTN AGGACCCCGT GGGCGACAGA GGTGTGGCCA GGGTGGGGCT 180  
 CCGAGCCCCG GGTACCGGCC CGCCCAGCGT TCCAGGCACA TGAAGAGAAA GCATTCCAAA 240  
 GCCTCTNATT GTTGTTCCT TTTTNTCCTC CCGAAGAACA GCTGATTCAT GTCCTCCCG 300  
 CAATTNTNAC GTCTGTAATT TATTTGGTGT TTCGGGCGTN GTCTCTTGA GCCCCGGCAC 360  
 GTTNGTGGGG CCCACGGTTG CTTGGCGGTT CAATGGGGCC CTTGGTGTGTT TGCACCGGAA 420

CTTTTGTAAG TCAAGTNCCG TGGGTTGGTN TTGTTACAAG AATTNAAAAC TAATTTTCC 480  
CGNTTGAAA 489

SEQ ID NO:4285

LENGTH:292

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05096

SEQUENCE DESCRIPTION:

GATCATATTT CCCCTTGGAC ACTTGGTTAG ACGCCTTCCA GGTCAGGATG CACATTTCTG 60  
GATTGTGGTT CCATGCAGCC TTGGGGCATT ATGGGTTCTT CCCCCACTTC CCCTCCAAGA 120  
CCCTGTGTTT ATTTGGTGTT CCTGGAAGCA GGTGCTACAA CATGTNAGGC ATTCGGGGAA 180  
GCTGCACATG TGCCACACAG TGAAGTGGCC CCAGACGCAT AGACTGAGGT ATAAAGACAA 240  
GTATGAATAT TACTCTCAAA ATCTTTGTAT AAATAAATAT TTTTGGGGCA AA 292

SEQ ID NO:4286

LENGTH:173

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05099

SEQUENCE DESCRIPTION:

GATCCCAGTG GAGGCTGTAA CCCACCTGCC CCCGCACCAC CCCCCNTGAC CCCTGTTACC 60  
GCATTTGTGT GTATTAATGC TGAAGAATTA AATGTTTAAA GAGTTTAAAT TTTGAAGGCG 120  
TTTGCTATAT ACAGTTGTCC TGCATTATTA TAAAGAGTTT TCAGGAAGTT AAA 173

SEQ ID NO:4287

LENGTH:307

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05100

SEQUENCE DESCRIPTION:

GATCAGAAAT GTGAAGCACA AATGCTGCTT CTCCCCCTCC TGTCCCATG TCAGAGATGG 60  
AGAAGAAAGC ACAGTGAGCT GTTCACCAGT CCAGCGGTGA CCTCGGAGTC CTTTGTAACA 120  
GTGTTTCCAA TANTTCTGTC CAATAAAACA GAATTTNNGT TAGAACCTAT CTGCTGTCCC 180  
TCAACTAGTG TCTGATAGCT GAGAATGTAA TTCGTTNTN TGTCTATTAG AAAATTAGGC 240  
AGGCACCACA GACAGTAGCA ACATAAAGGA ACCTGCTTAG AAGNGGTTTT NATGGGNNNN 300  
NNCNCNN 307

SEQ ID NO:4288

LENGTH:244

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05102

SEQUENCE DESCRIPTION:

GATCCTTAAA TCTCCATTCT GTTTGTGGTT GCCCCCTCAA CCTCCCCTAC ACCCTTCCTA 60

TTCTTTTCA TTCTTCTGTC AGTTCTGGGA GTAAAGCTCC CAGCATATTT AGATAATAGG 120  
 GCAGGGGAAG CACCCTCTTT CTTTCTAGAC TGGATTATGC TCACATGCTC CCTTGCCCTG 180  
 ACATTTTGT AAATNCTGTG CCCTTTGCTG TAGCTACACT TCAGATTAA GTAGGAGAAA 240  
 GAAA 244

SEQ ID NO:4289

LENGTH:69

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05103

SEQUENCE DESCRIPTION:

GATCAAAGTT GGGGGGGCT TGGCTGTGCC CTCAGATTCC GCACCAATAA AGCCTTCAA 60  
 CTCCTAAA 69

SEQ ID NO:4290

LENGTH:341

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05104

SEQUENCE DESCRIPTION:

GATCTTTNAT CCTTTGTTGC AAAAGTGTGG ACACTTTNA NAGCTTGGCA GATTNAACT 60  
 CCAGAAGCAC TTTATGAAAT GGTACACTGA CTAATCCAGA AGACATTTCC AACAGTTTGC 120  
 CAGTGGTTCC TCACTACACT GGTACTGAAA GTNTAATTNN TTAGAGCCAA AAAACTGGAG 180  
 AAACAAATAT CCTGCCACCT CTAACAAGTA CATGAGTACT TGATTTTAAT GGTATAAGGC 240  
 AGAGCCTTN NTTCTCTTC TTGATAGATG AGGCCATGGT GTAAATGGAA GTTTCAGAGA 300  
 GGACAAAATA AAACGGAATT CCATTTTTT NTCAGTAA A 341

SEQ ID NO:4291

LENGTH:395

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05105

SEQUENCE DESCRIPTION:

GATCTTAGAG TCACTTTGGA ATAAGNTCTT ACATAAATAC CCCCAGCCTT TTGAGAACGG 60  
 GGCTTGTTAA AGGACGCGTA TGTAGGGCCC GTACCTACTG GCAGTTGGGT TCAGGGAAAT 120  
 GGGATTGACT TGGCCTTCAG GCTCCTTTGG TCATAATTTT AAAATATGGG AGTAGAAAAC 180  
 AACANAGNNT GGAATGGACT CTTAAACAA TGAAAGNGCA TTTATCGTTT GTCCCTTGAA 240  
 TGTAGAATTT TTTTTTGATT TCATAATTCT NCTGGTAAAT NTGNCAGTTA AAATGGTGCA 300  
 TTATGTATAT ATTANTATAA TTTAGANATT CCATTTTATA NTTNTTCTTA TTCCAGGGTN 360  
 GCATAANGCA TTTNNANTT TNGGGGTTTT GGNTN 395

SEQ ID NO:4292

LENGTH:349

TYPE:nucleic acid

TOPOLOGY:linear



CLONE:HUMGS05106

## SEQUENCE DESCRIPTION:

GATCATATTT TGCAGTTTGA GTAAAAGGGA AATATTGTGA TACATTTNTT AAATATACTT 60  
 CCCCCATGAN GTGAAAAGGT TAATTTTNCT GANTGTTTGA AGTTGAAGTT ACTTCATGGA 120  
 TGTCATACCC ATGANGTGCA TTTGGNTGAG ATAGCNGAAA TTTTTTTTAA AAAAGTTTAA 180  
 GTACCAAAGG TAGTCTAGTC TAGAACCATA AGTTAATACG TNTTGGCTTT NNTAATTTGT 240  
 ACTGTAAACAT CCTTATACTT TCTATTNAA GTATATCTGT TTCTTAAGTA AACAACTTAG 300  
 ATATTTTCCA CACCTTTTTT TTTTTTNCC CNTGNNGGGT CCNGGGTNN 349

SEQ ID NO:4293

LENGTH:257

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05107

## SEQUENCE DESCRIPTION:

GATCTGCCAT TTATTAGCTG TGGGATTTTG GGCAAATTTN TTGACTTTCT GTGCTTCANT 60  
 TTTCTTAGCT GTAAAATTGG AAGAGTTGTT ATGAAAATNC ACTGAAAGTA TATTGTATA 120  
 CATCATAGGA TAGTGTAAGA ATATAGTATG GCTTTGAGAA ATGTTCAATNA TTATNACTCC 180  
 CAGAGGAGTT TTAGGTATTA AGTGATGCCA AATATAATTT NTNAATTGTA TAATAAAAAT 240  
 CTATATNCTT ACTGAAA 257

SEQ ID NO:4294

LENGTH:212

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05108

## SEQUENCE DESCRIPTION:

GATCACCATC CCAGTAACCT TCNAGTCGCG GGCCCAGCTT GGGGGCCCAG AAGCTGCAAA 60  
 ATCCGATGAG ACTGCCGCCA AGTAAAGCCT TAGCCCGGAT GCCCACCCTT GCTGCCGCCA 120  
 CTGGCTGTGC CTCNCCCGTN ACCTGTGTGT TCTTTTNATA CATTTATCTT CTGTTTTNT 180  
 CAAATAAAGT TCAAAGCAAC CACCTGNANA AA 212

SEQ ID NO:4295

LENGTH:559

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05109

## SEQUENCE DESCRIPTION:

GATCCAGTGG GGATGTTGTN ATGACTCAGT CTCCACTCTC CCTGCCCCTN ACCCTTGGAC 60  
 AGCCGGCCTC CATCTCCTGC AGGTCTAGNC AAAGCCTCCT ATACAGGGAT GGAAACACGT 120  
 ACTTGANTTG GTATCAGCAG AGGCCAGGCC AACCTCCAAG GCGCCTCATT TATGAGGTTT 180  
 CTAAGCGGGA CTCTGGCGCC CCAGACAGAT TCAGCGGCAG TGGGTCAGCC ACTGATTTC 240  
 CACTGACANT TAGCAGGGTG GAGGTTTGAC GATGTTGGGA TTTACTATTT GCATGCAAGG 300  
 AACACACTGG NCTCAGACGT TCGGCCAAGG GGACCAAAGG TGGNAAATTC GAACGAACCT 360  
 GTGGCCTTGC ACCNATCTTT TTTTCATCTT TNCCGNCATC TTGTTGNGC AAGTTTGNA 420

ATNTTGGGAA CCTNGCCTCC TTTTGGTGN TGCCTTGNCT TGAAATAACT TNNTTATTCC 480  
 CAAGAGGAGG GNCAAANTTC AAGTTGGGAA GGTGGTTTA ACCGGCNTTC CAATTCNGGG 540  
 GNAANTCCCN TGGNGGGNN 559

SEQ ID NO:4296

LENGTH:50

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05110

SEQUENCE DESCRIPTION:

GATCTCTATG TATGTGTGTA TATAATATA GTTTTTATC TATATATAAA 50

SEQ ID NO:4297

LENGTH:548

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05111

SEQUENCE DESCRIPTION:

GATCAAACGA ACTGTGGCTG CACCATCTTT NTTTCATCTT CCGCCATCTG ATGAGCAGTT 60  
 GANATNTGGA ACTGCCTCTT TTGTNTGCCT GCTGAATAAN TTCTATCCCA GAGAGGCCAA 120  
 AGTACAGTGG AAGGTGGATA ACGCCCTCCA ATCGGGTAAC TCCCAGGAGA GTGTCACAGA 180  
 GCAGGACAGC AAGGACAGCA CCTACAGCNT NAGCAGCACC CTGACGCTGA GCAAAGCAGA 240  
 CTACGAGANA CACAAAGTNT ACGNCTGCNA AGTCACCCAT CAGGGCCTGA GCTCGCCCGT 300  
 CACAAAGAGC TTCAACAGGG GAGAGTTTAA AGANGGGAGA AGTGCCCCCN ANCTGGNTCC 360  
 TCAGTTCAG CNTGACCCTC TCCNATCCTT TGGCCTGTGA CCCTTTTTTT TCCACAGGGG 420  
 GNCCTACCCN TTTTGGNGGT CCTCCAGCTC ATTTTTTTAA CCTTAACCCC GNTTNNTTCT 480  
 TCCTTTGGGG TTAAATTAT TGNTTAATTT TTGGGGGNGG ATTGNTTTAA ATTAAAGGGA 540  
 ATNTTTTN 548

SEQ ID NO:4298

LENGTH:415

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05112

SEQUENCE DESCRIPTION:

GATCAGCGCC TGAGAAGTCG TCGGGCGATG TCCCGCGGCC GTGTCCCTCT CCAAGCNCCG 60  
 CCCCTGGGTG GGCTCGGTGG AGCAGACCCC GCGCAAGAGG CTGCGGTGAG CCAATTTAGA 120  
 GCCCAAAGAG CCCCAGGGA ACCTGCCGGG GCAGCGGACG TTGGAAGGGC GCTGGGCCTC 180  
 GGNTGGNACC GTTCATGTAG CAGCAACCGG CGGCGNNTGC CCAGNAGCAG CGTTCGGTTT 240  
 TTTTTTTAA TTTNAAAAC TGTGCAATGT ATTAATAACG TTTTTTTATA TCTAAATGGT 300  
 ATTCTGCAGC AGANGNTACA CTGGGTCCCA AAGGTGTAAA AGCTTTTTAA GAGTCATTGT 360  
 ATTATAAAN TNNNTTTAAT CTNTTGGTTG AAATCTTNA GTGNNANAGT ATTNN 415

SEQ ID NO:4299

LENGTH:156

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05113

SEQUENCE DESCRIPTION:

GATCTAATCT NAGATGTAAA CATTCAAATT NACCCTGTAG ACTNGGGTGA CAAGTTTCGN 60  
 TTGGTCATAG CTAGTACCTT GTATGANGAT GGTACCCTGG ATGATGGTGA ATACAACCCC 120  
 ACTNATGATA GGCCTTCCAG GGCTGACCAG TTTNAN 156

SEQ ID NO:4300

LENGTH:310

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05114

SEQUENCE DESCRIPTION:

GATCTTACTT TCATCCAGTC TAATAGGTTT GGAGATTAAA CCTTNTCTCA ACTTGTGCTG 60  
 TTTATATAGC CAAGCTTCCG TCAATAAGGC TTCATTGTGA CTTTAACAAA CATNATCTTC 120  
 CCACATACCA GGAACATTG GACATTTATT TTACATGGGA AAAATTATTT GGAATAATAA 180  
 AGCAGGNACT TTNCCTGANG TTGCAATTTA TACTGTATGG CTNCTNNTTC ATGTTTCATC 240  
 TAGGTTTTAN GAAGTGAAGT ATANGTAAAT NTNGGTTTCGT TAAATNGTGA TGGCGCTGGN 300  
 NATTACATGN 310

SEQ ID NO:4301

LENGTH:231

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05115

SEQUENCE DESCRIPTION:

GATCACTCAA GCACAGGATT TTAAGACCAG CCTGGGCAAC ACAGTGAGTG AGACCCTGTC 60  
 TCTACAAAAA AATTAATAAT TAGCTGGATA CTGTGGTGTG TGCCTGTAGT CCCAGGTACT 120  
 TGGGGCATTG AGGCAAGAGG TTACTTTNAG CTCGGGTGTT TGAGGCTATG ATGAACTATG 180  
 ATTGTAGTGC TGTACTCCAG CCTGTGCAAA ANAGTAAAC CTTGTCTCAA A 231

SEQ ID NO:4302

LENGTH:52

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05116

SEQUENCE DESCRIPTION:

GATCGGGCCA CTGCACTCCA GCATGGGTGA AAAAGTGAGA CCCTACCTCA AA 52

SEQ ID NO:4303

LENGTH:419

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05117

## SEQUENCE DESCRIPTION:

GATCACCAAC AGCCGTCCTC CCTGCGTCAT CCTGTGACTG CACAGGACTC TGGGTTCCCTG 60  
 CTCTGTTCTG GGGTCCAAAC CTTGGTCTCC CTTTGGTCCT GCTGGGAGNT CCCCCTGCCT 120  
 CTTTCCCCTA CTTAGCTCCT TAGCAAAGAG ACCCTGGCCT CCACTTTGCC CTTTGGGTAC 180  
 AAAGAAGGAA TAGAAGATTC CGTGGCCTTG GGGGCAGGAG AGAGACACTC TCCATGAACA 240  
 CTCTCCAGC CACCTCATAC CCCCTTCCA AGGGTAAGTG CCCACGAAAG CCCAGGTCCA 300  
 CTCTTNGNCT CGGGTAATAC CTGTCTNGNT GCCACAAGA TTTTATTNA TTCTCCCCTT 360  
 AACCCNAGGG CAATGTCANN NTATTGGCA GTAAAAGTG GGGTTACAAA ANCACTAAA 419

SEQ ID NO:4304

LENGTH:75

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05118

## SEQUENCE DESCRIPTION:

GATCTCCCTA GGGCCCCACC TGGACCATTT TCCCTCCGTT TTATTTTGT AATTAAATTC 60  
 TTTCCAAATT GGAAA 75

SEQ ID NO:4305

LENGTH:171

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05119

## SEQUENCE DESCRIPTION:

GATCTCAGTT CACTGCAACC TCCGCCTCCN AGGTTCAAGT GATTCCNTTG TCCCAGCTAC 60  
 TTGGGAGGCT GAGGCAGGAG AATCACATGA GCCTGGGAGA TGGAGGTTGC AGTGAGCCGA 120  
 GATTGCACCA CTGCACTCCA GCCTGGGCAA CGAGCAAACC TGCNNCTCAA A 171

SEQ ID NO:4306

LENGTH:309

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05120

## SEQUENCE DESCRIPTION:

GATCCCTGGT GTGTTGTGTG GGCCTCTTTA ACGTTTGCCA CTGAGCCTTA ACCTCACTGT 60  
 ACTTCACTGT ACTTCACACG CATTGGTGTT AACATTTTAA TCTTAGAAGA CCCTGACCCA 120  
 CTGAGGGTTT GTTGTGAGAA TTGCTGAAGC CACGTAGAAG CACCTTGAAA TCTGTAAAC 180  
 CACAAGAAAG TACTTTATAA AAGGTATCCT TATTGAAGT GGATAAATCT TGTAACCTGA 240  
 AAAGTTGTGA TTTAGAAGAC AGGATTGTTT TTGAACATTA GGAATTAAAG GCTATATCTG 300  
 GTCCTTAAA 309

SEQ ID NO:4307

LENGTH:587

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05121

## SEQUENCE DESCRIPTION:

GATCTAAAA CTCATCTTTG GGGTAAAGAG TTAAGTGTCC AAAGGTTGTC ACAGTTCATG 60  
 AGGTCAGAGG GAGCTAGCCT GGCACCTGGA CTCTGCCCAT CCACAGCTGA CAGATTCCAA 120  
 CAGAAGTGTA TTAAATTCT CCAGTAGACA ATGCTGGGTA AGGGAGGGGN TAGNNCTGGG 180  
 TTATTAAGAT ACAGGCTGCT GTATTTTACA TTGGTTGTGG GGGAAGGGGA GCCTGGAGAA 240  
 AACAAAGTCA CTATTCCCTT TTTTGAAACA GGAAAAAAA TTATTTTTTG TTCAGTAAAA 300  
 ATGGGTAGGN GAATTCCAAT GTCCCTAGCC ACAAGGGNCC AGTTTCCACT GAGGAAGTGA 360  
 ACCAGTGGGG AACTCAAAAT TTCCAGGNAA CATTGGGGGG GAGGGGGAAA ANTTGGGCTT 420  
 TTCNCTTAAA TTTGGCAGNT NTTTNCAGT TGGGGNCNGG GNGGGGGGCT CCTGTTTTTT 480  
 TTTTGGGGG NTTGTGNTTA NTGNTNNTAT NGTACCGGNT TATTTTGGC CCCGGGGTTT 540  
 TTCTTGGGNT TTNTNAAGGG TTNCCCCAAA NTTTGGGTNA AAACNTN 587

SEQ ID NO:4308

LENGTH:111

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05122

## SEQUENCE DESCRIPTION:

GATCCCCCA TCTCTNCAGC ACTCTCTTGC TCCTCTCCCT TTTCATTTC TTACTTTGTA 60  
 TCTTNTCAGA TTAGAACATA TTTTNTTGT CATGACAAAG GACTCTCAA A 111

SEQ ID NO:4309

LENGTH:311

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05123

## SEQUENCE DESCRIPTION:

GATCTNAACT CCTTGGCTTC TTTACTTAGT TCAAGCCCCA GCCTAGGAAA GCCAGTTACA 60  
 TAAAAGTTGG CTCAGGAGTC TTAGAGCTTT ACCTAAATAT GAGCCCAGAA AACGGAGGAT 120  
 GGGGGTGGGG CGCCTTCCTG GAGGTGACAC TTGATGGGGG TGTGTTCTGG TTACTGTTCT 180  
 AAGGCTGTGC CATCAGCTCC TTCCTCCCT GTTCATTCTG CATTCTCTAG TCAGTTGGCT 240  
 AAGAAGTGAC TCTTGCAACT AAAAAAATTA AGAAATTCAC TTCCCCTCTA GGAGGTGATG 300  
 ATAGGGTTTT N 311

SEQ ID NO:4310

LENGTH:366

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05124

## SEQUENCE DESCRIPTION:

GATCAGAGTT TCTGTGGAAT TCTGTTTGT AAATCAAATT AGCTGGTCTC TGAATTAAGG 60  
 GGGAGACGAC CTTCTCTAAG ANGAACAGGG TTCGCCCCAG TCCTCCTGCC TGGAGACAGT 120  
 TGATGTGTCA TGCAGAGCTC TTACTTCTCC AGCAACACTC TTCAGTNCAT AATAAGCTTA 180  
 ACTGATAAAC AGAATATNNA GAAAGGTGAG ACTTGGGCTT ACCATTGGGT TTAAATCATA 240

GGGACCTAGG GCGAGGGTTC AGGGCTTCTN TGGAGCAGAT ATTGTCAAGT TCATGGCCTT 300  
 AGGTAGCATG TATCTGGTCT TAACTCTGAT TGTAGCAAAA GTTCTGAGAG NAGCTGAGCC 360  
 CTGTTN 366

SEQ ID NO:4311

LENGTH:240

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05127

SEQUENCE DESCRIPTION:

GATCACGCTG ACCTGGCAGC GGGATGGGGA GGAACAGACC CNGGACACAG AGCTTGTGGA 60  
 GACCAGGCCT GCAGGGGATG GAACCTTCCA GAAGTGGGCC GCTGTGGTGG TGCCTTCTGG 120  
 AGAGGAACAG AGATACACAT GCCATGGTGC AGCACGAGGG GCTNCCCCAG CCCNTNATCC 180  
 TGAGATGGGA GCAGTCTCCC CAGCCCACCA TCCCCATCGT GGGCATCGTT GCTGGCCTTN 240

SEQ ID NO:4312

LENGTH:96

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05128

SEQUENCE DESCRIPTION:

GATCTTTTCT CCATCATGTA CTTAGTATTT CCCATTAACC TACACACTGA TTTTNTGCT 60  
 ACTCCTTGTA GAAACAAAAT TNTGGNTGGA CTCAGN 96

SEQ ID NO:4313

LENGTH:354

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05129

SEQUENCE DESCRIPTION:

GATCTGCTGG TCCTTGCAAG CAAAGCTACA GCCAGANTGT CCGTTTGANA CTCCTAGCTC 60  
 ATCTGTCACC GAGCTTATC CGAATGTGCC ACGGAGCTTN CTCTCCACTT CCTCCGTGCA 120  
 GCGGCCCTGC CACAGCCCTC CCTCGGCACA CTTTGACCCT TTGTAGGGTT GGNATTAGCA 180  
 GGA CTGGCT ATTTAAAGCA CCAGTCTGGG GTCGCCTGGG CCCCTGCTGA CCCNTTCCTN 240  
 CAGAGCAGCC AGCCAGCCC GGGAAACAAGA CGGACTTNCT ATNCCTTCGG ACTCACAGCC 300  
 TTTGAAGAGT CAAGCTNCAC TTNAAGCTCA CTCAGTAATA TCCTTTCAAT GNGN 354

SEQ ID NO:4314

LENGTH:161

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05130

SEQUENCE DESCRIPTION:

GATCCGCCAC TTTCGGCCGG AGCTCGAGGA GCGGATGCAG CGGTTTGCCC AGCAGCATCA 60  
 GGCCCGGCAG GCTGCCTCTT AGCCACCCAC CCTGGCCTGC TGTCTGCGT CTATCCATGT 120

GGAATGCTGG ACAATAAAGC GAGTGCTGCC CACCCTCCAA A 161

SEQ ID NO:4315

LENGTH:129

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05132

SEQUENCE DESCRIPTION:

GATCCTGGCT TTCCAGGGTG GGCAAGGGCA AGGAGCAGGC TTGGAGCCAG GGACCAGTGG 60  
GGGCTGTAGG GTAAGCCCCT GAGCCTGGGA CCTACATGTG GTTTGCGTAA TAAACATTT 120  
GTATTTAAA 129

SEQ ID NO:4316

LENGTH:227

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05133

SEQUENCE DESCRIPTION:

GATCTTTGAG GTGAACAACT TGCCTGTGGA ATCGTGGCAG TAACTGTTTC CACTCACAGC 60  
CTGAAATTCT CCTNTGTCCC AAACCCAGG GGGCCCAGC AGCTTCGAAC CTACACCTGA 120  
GGGCTACCAG CAGGTGGCGC TNTGGCTTTG CACTGCAAAA ACTGGGGACC AGCCCNCTTC 180  
TNCCACAAAT AAAGCCCAAT AAAGCCTGAG AAGTGAGGAA AGCCAAA 227

SEQ ID NO:4317

LENGTH:154

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05134

SEQUENCE DESCRIPTION:

GATCTCCGTG GATGAAGTGC GTCTGGACTC TTAGATTCAT AAAATATTCG AGGGTTTGGA 60  
AGTNACAGAC CCTCCCCTCT CCTCAGTGCA CTTTGGCATT TNCACGGTGT CTTCCCCGGA 120  
CAGCACAGCA ATAAATNGNG TGATTGCGTG GAAA 154

SEQ ID NO:4318

LENGTH:181

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05135

SEQUENCE DESCRIPTION:

GATCAGGTTT GGNCTTCTCC CACTGAGCAT GACAAGCACT CGAAAGGCTA AATCAACCAG 60  
AAACATCGAA ACAAAGCTC AGTACGATGC CAACTNTTAA GCCTGCAGGA NTCCTCCTGG 120  
GTTGTCCCC CGGCACGNTC CACAGCTGGT NGACCCGGCA GTTCCTGGNT CTTGTTTCAG 180  
N 181

SEQ ID NO:4319

LENGTH:315

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05136

SEQUENCE DESCRIPTION:

```
GATCTGCCCT TGNTNGCCTC ATACCTCTGT GCTCCACACT GCGGCCAGGC CAGCTGAGTC 60
CCTCCATCCG TGGATGCTTT CCTGCAGCTA TGTGGTATGG GGGTCATTCC TGCCTCTTGG 120
CACCAGGTG GGGGGCATGT GCTTGTGGG CACCAAAGTG ATGGAACCCT CAGGTGCTCT 180
CCGGGAGCCT GAACCTCCTG ACTGAGGAAC ATGGGCAGAA CATGTTTATT GCACAGAGTG 240
GGCGTGC GC ACAGGCGTGG CTGTACACGT GCTCTCAGCT CATCATCCTT TCCAGTAACT 300
TTAAAAAAC ATCCN 315
```

SEQ ID NO:4320

LENGTH:255

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05137

SEQUENCE DESCRIPTION:

```
GATCGNGNNA CTGGGGNGN GGCCTAGGC ACTACCAGCA GCGCACGCTC ACCTTCGCCC 60
TCAGGGCTGA CGACCCCTG CTCAAGCTCT TGCAGGAGGC TCAGCAAAGC TGAATTAAC 120
CAGGCAGAAG AGCAGAGATG TGTGGGATTG GGGGAGGAGT GGGGACAAGA TTTTNNATCT 180
CTAAGTGAAT TTTCTAAAAA TGTATTTTAT ACCGGCTTAT TCCTAGTATT GNATAAACTA 240
GCGGGNTCAN TCAAA 255
```

SEQ ID NO:4321

LENGTH:212

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05138

SEQUENCE DESCRIPTION:

```
GATCAAACAT GCATGGNTGG GTCCTCACGC AGACACACCC ACAGAAGGAC ACTAGCCTGT 60
GCACGCGCGC GTCNATCTAC ACACACACAC AAGAGTTCAT AATGTGGTGA TGGCCCTAAG 120
TTAAGCAAAA TGCTTCTGCA CACAAAACCT TCTGTTTAC TTCAAATTAA CTCTATTTAA 180
ATAAAGTCTC TCTGACTTTT TGTGTCTTCA AA 212
```

SEQ ID NO:4322

LENGTH:136

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05139

SEQUENCE DESCRIPTION:

```
GATCGAGTTA TTATGATAAC TGTGGTAATT TGTGTTATA AATAGCAGTA ACATAGGAAG 60
GTTTTGGTAA CTNCTGACAA GAAATTTNAT GTAGAGAGTT AATTCGAGC ACATTAAAT 120
GACTGTCCCA CTCAAA 136
```



SEQ ID NO:4323

LENGTH:228

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05140

SEQUENCE DESCRIPTION:

GATCTGCATT ATTCTNGGAN AGTATTCAAG TGGTATCTTG ACTATTAAAC TACGTATAGT 60  
GTTNNTGNAA TAGAAAGAAA ACAGCATTGG AATTGGATTG ATGTATCGTG GGATACAGGT 120  
GTTATTTCAG GTGATGTACT TGCATTATTT TCTTTAGCCA TAGTAACTTT TTGTCACAAT 180  
AACTAAGTAT TCAATTATAT ATAANGAGTG AAACATTAAA ATGGNAAA 228

SEQ ID NO:4324

LENGTH:297

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05141

SEQUENCE DESCRIPTION:

GATCCTGCCA CTGCACTCCA GGCTGGGCAA CAGAGTGAGA CCATGTCTCA AAAAATAAAA 60  
ATAAAATAAA ATAATATCAG GNTGCATACA TCAGAGGCTG TTCCTAGTGT AAAGGCACTT 120  
TGGAGGGAGA AGACTTTCAG AGTTAGGCAG ACCAACTAAG AGGTCAGCTG ANGCACCTAA 180  
CCAGTTGTAA GGAGGTGAAA GACAGCACCC CAAGANGAGA TGTGCAGGAN GGAGGAAAGA 240  
GGCTTGGTCA TAAAGGNTGG AGGAATTCCA AAGTGACACT GANACAGGCT GCGTTN 297

SEQ ID NO:4325

LENGTH:90

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05142

SEQUENCE DESCRIPTION:

GATCGTTCTG CTGAGTATGT TAAGCTCTTT ATGACTGTTT TTGTAGTGGT ATAGAGTACT 60  
GCAGAATACA GTAAGCTGCT CTATTGTAAA 90

SEQ ID NO:4326

LENGTH:411

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05143

SEQUENCE DESCRIPTION:

GATCTGCTGC TGCCATTTTA ATCTTGCTCA TTAACCTTAC TCCTTTGAGA ATTCTTTAAC 60  
AATATTTAAA ATTGGTAACA AAAATAGTTT AGCCATAATT GTTAGCCAT GTGAGTTTCA 120  
GGTTGGTACA CGTTCAGACA GAACTGCTGT ATCACATTCC AATTTTGAAT AGCCAGTGAG 180  
CAATCAAGTG TAGAGAAATG ATAAATGGCC TAAGAAGGCA TACAGTGGCA TAAACGATGC 240  
TCTTCCTAGT AGCTTAATAG GCCACAAGCT AGTTTCTGTT GCACTCTGAA ATAAATATG 300  
CTTTAAAAAT GTAGGGANCA GTGCTTAGAA AAGCAAAANC TAGGTGTGTC ATTGANATAA 360  
TAGGCATAAN ACTTAAATGT TCCATAGGCC ACTATTGGA AGGGGGCCTT N 411

SEQ ID NO:4327

LENGTH:99

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05144

SEQUENCE DESCRIPTION:

GATCTACACA TTTTATAGT CATTTAAAT TGTATGACTC TGTCAAATNA TTAAAGTAAT 60  
TTTGGTGGAT TTTTAAAT AAAAAATAA AAATAGAAA 99

SEQ ID NO:4328

LENGTH:80

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05145

SEQUENCE DESCRIPTION:

GATCAGTTTT TATAGCATCT ATGGACATAG AAAATCAGTC ACTGAAAAA ATAAACACAG 60  
CTTCAATGT CTCACTCAA 80

SEQ ID NO:4329

LENGTH:263

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05147

SEQUENCE DESCRIPTION:

GATCCAGAAT CACCAAGACC TCCAGCCCTG GATGATGCCT TTTCCATCCT GGACTTATTC 60  
CTGGGACGTT GGTTCGGTC CCGGTAGCCT TGTTAACCCT CAGAGGCCTT CAAGTCCTTT 120  
CCACCTNTCA CCCATTGCCC ACCATTAANA AGCTTAGCTG NNTCTTGCCA CCTCAGGGGC 180  
TTGGATATGT GGAATAGTGA ACTGGGNCCA TGTCAGTTTG TCACTNACCC AAAGTGACCA 240  
ATAAAACCTN NATTTATGNT AAA 263

SEQ ID NO:4330

LENGTH:111

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05148

SEQUENCE DESCRIPTION:

GATCCTAANN CTGACAAGAT TCAAAGNACT AAATTTAATT CAGTCATNAA CACTACCAAT 60  
TACCGTTTAT NGGTAGACAT CTTTGGAAT TTCCACAAGA GCAAGCTAGG N 111

SEQ ID NO:4331

LENGTH:264

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05149

## SEQUENCE DESCRIPTION:

GATCTGACCT GTTTATTGTT GGCCTTGT GAAAACGAGC TTTCTTTCCC ATGATAGTGC 60  
 TTCGTTTTTG AAGTGTGAA GCTGTGCTCC CCTNAAATCG TGGCAGGAGA GATTAAGGTA 120  
 ATTACAACAC TCAGTTCTAT GTCTTACAAG CACTTTGTCT TGTCTCTGCA AGAAAATTCG 180  
 ATNCCNGTCA TNTCCATAA AATACAGNCA TTTTACCANC ATANTATGCT TTGATTGANG 240  
 CAGCANTATG CTTTGGGCA GTAN 264

SEQ ID NO:4332

LENGTH:259

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05150

## SEQUENCE DESCRIPTION:

GATCCTCCCG CCTCAGCCTC CCAAGTAGCT GGNATTATAG GTGTGTGCCA CTGTGCCAAG 60  
 CTAATTTTTT AATTTTNGT AGAGATGNGA TTNACCATG TNACTCAGGC TGGTCTCAAA 120  
 CTCCCAGCCT CAAGCNATGC TCCCACCTCC ACCTCCCAA GTGCTGGGAT TACAGGCCGTG 180  
 AGCACCATAC CTGGCGCATG CATATTTTNN AAGAGTACCC ACTGGNGTCT AATATATAGC 240  
 CTGGGNTACC TGGGATGAN 259

SEQ ID NO:4333

LENGTH:250

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05151

## SEQUENCE DESCRIPTION:

GATCTAACCA ATTTGAATAT GACTTCCTAC TCCAACGTAT CACCAAAACA CTGAAAAGCA 60  
 ATAGCTGGTT TGGTTGTTAG AAATGGTGTG ATTAATGGTT TTNGTTAGTT CACTTCAGCT 120  
 TAATAAGTAT TTATNGCATA TTTGCTATGT CCTCAGTGTG CCACTACTTA GAGATATGTA 180  
 TCATAAAAAT AAAATCTGTA AACCATAGGT AATGATTATA TAAAATACAT AATATTTTTC 240  
 AATTTTGAAA 250

SEQ ID NO:4334

LENGTH:260

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05152

## SEQUENCE DESCRIPTION:

GATCGCATTT ATATAACATT CTTGAGGTGA CAAAATTATT GAAATGAAGA ACAGATTAAT 60  
 GGTGCCAGG GATAGGGACT GGAGGGGGTG TGGGGTATGT ATGACTATAA AGGGATGACG 120  
 CAAGGAGTTC CTTTGTGCTG ATGGAACAGT TCTATATGAT TATGATGATT ACGATGTTGA 180  
 TTATAACATT TGATTATGAG GTTAAGCACA TGAGTCTTTA CCTGTNCTGA AGTTGTATGG 240  
 ACCTACATAC ACACAAATGN 260

SEQ ID NO:4335

LENGTH:261

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05153

SEQUENCE DESCRIPTION:

GATCAAGACG AGCCTGCACC GCCTGAAGCC CGACACGGTG CCAGCGCCCT GCTGCGTGCC 60  
CGCCAGCTAC AATCCCATGG TGCTCATTCA AAAGACCGAC ACCGGGGTGT CGCTCCAGAC 120  
CTATGATGAC TTGTTAGCCA AAGACTGCCA CTGCATATGA GCAGTCCTGG TCCTTCCACT 180  
GTGCACCTGC GCGGGGGAGG CGACCTCAGT TGTCTGCCC TGTGGAATGG GCTCAAGGTT 240  
CCTGAGACAC CCGATTNCTG N 261

SEQ ID NO:4336

LENGTH:145

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05155

SEQUENCE DESCRIPTION:

GATCCTCAGT AAACCTCTGAG AAATAATGAA TGTTGGTTGT TTTAAATGG TAAATNTTGA 60  
GGTATTATGT TATGTGGCAA TAGATAGCTA ATATATAACT NATTTGANTC AAACAATATG 120  
TTAANTTAAA GCNCAGAAGA NTAAA 145

SEQ ID NO:4337

LENGTH:264

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05157

SEQUENCE DESCRIPTION:

GATCTAAGGA AAGAAATGGA GCAACTAGTG CTTGACAAAA AGCAAGAGGA GACAGCCGTA 60  
CTGGAAGAGG ATTCTGCAGA TTGGGAAAAA GAACTGCAGC AGGAACTTCA AGAATATGAA 120  
GTGGTGACAG AATCTGAAAA ACGAGATGNN AACTGGGATA AGGAAATAGA GAAAATGCTT 180  
CAAGAGGAAA ATTAGCTGTT CCTGAAATAG AAGAATAATC CTTAACAGTC TGCAAACCTGA 240  
CATTAAATTC TAGATGTTGA CAAA 264

SEQ ID NO:4338

LENGTH:109

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05158

SEQUENCE DESCRIPTION:

GATCGGGGCG GGGAAACAGC NGGAAGANGG NCGCACCCGG TCTGACTACA ACANCCAGAA 60  
AGAGTCCACT CGGCACGTGG TCCNGCGCGT GAGGGGGGGT GTCTAAGTN 109

SEQ ID NO:4339

LENGTH:195

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05159

SEQUENCE DESCRIPTION:

GATCAGTATA CAGTGTACGT AAACACACC ATCCTCAAAC CCCGAAAGC AAAGCAAATC 60  
 AGGAAGAAAA GTGGAGGTTA GCAACACACC TNTGGCCCCA AAGNACAACC ATCTTGTTAA 120  
 CTATTGATTC CAGTGACCTG ACTCCCTGCA AGTCATCGNC TGTAACATTT GTAATAAAGG 180  
 TCTTCTGNCA TGAAA 195

SEQ ID NO:4340

LENGTH:54

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05160

SEQUENCE DESCRIPTION:

GATCTAATAT TCAGGAATTT TTCTCCTAAA GACACCCAGT AAAAATATCA CAAA 54

SEQ ID NO:4341

LENGTH:89

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05161

SEQUENCE DESCRIPTION:

GATCACTGTG TAAACTAAG TNTCTCTAAA TGTAATGCAT CGATTTAGTG TCTGGAACAT 60  
 AATAAATATT TGCTCTCATG ATTGCTAAA 89

SEQ ID NO:4342

LENGTH:89

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05162

SEQUENCE DESCRIPTION:

GATCTACATC CCCATCCACC TATACGGACA TCTTTTCCGT TGTGGTTTGA GAATGTTCTT 60  
 ATAATAAACC CCTCTGCTTT GTTCTTAAA 89

SEQ ID NO:4343

LENGTH:102

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05163

SEQUENCE DESCRIPTION:

GATCGTCTTG TATGGTGAAT TTTCTAGGAG CGATGATGTA CTGTAATTTT ATTTAATGT 60  
 ATTNNGATTT ATGATTATNT ATTAGTTGNN TTAAATGCT TN 102

SEQ ID NO:4344

LENGTH:248

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05164

SEQUENCE DESCRIPTION:

GATCAATTNT GCANCANACA NCAATCTTAA CCATTTCAG AACTACTAG TTATATTAGG 60  
 CACGTTTTAA AACTTAAAC AAAATAAAGG CCATCCCAA CCCTGGGCTG TTGTCGGGTT 120  
 ATTTTCAGC AGGGTTGTGT TCAAAANCTT CCTTGACTC CCTGAGACTT TATCTNCTNC 180  
 TTGCAGAGTA AGATGGAAAG CCANTCAGTG TTTGCNGTAA TGAATACAG NGTAGTGCCA 240  
 TTCNGGNN 248

SEQ ID NO:4345

LENGTH:239

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05165

SEQUENCE DESCRIPTION:

GATCCAACT TCTACAGCA AACTTACTT CTTTAGGAA AGACATACTT GAACTACAC 60  
 AACAAAAAGC TTGCTGCTTT CTGGCTAATG AAAGCCAAGG ACTATCCAGC ACACACAGAG 120  
 GAGGATAAAC AGATACAGAC AGAAGCTGCT CAGTTGCTTA CAAGTTTCAG TGAGAAGANT 180  
 TGAGAACTTT TCAGAGAAGA TTTATGAAAT AGCTAATAAA CATTGCCTTT TCTTTTAAA 239

SEQ ID NO:4346

LENGTH:223

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05166

SEQUENCE DESCRIPTION:

GATCAAAAAA TGTCTCCGCT CAGGGATTTA TGGTGGATTA TTGCAGACAN TGCTAAAAAT 60  
 ATAGA GCACA AGACAAGTTT ACTAAATTAA AATTTTATTT TTTGAGAAAC TGTATTGT 120  
 ATAAATTATC AAGATTGTA GGCTTTCCTT TNGTAGAAAT AATTGTTTAA TGTGCCAGAG 180  
 AATTTCAATT TNGTTTCAA CAATAAGCA TTGATAAGAG AAA 223

SEQ ID NO:4347

LENGTH:52

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05168

SEQUENCE DESCRIPTION:

GATCATTTGT TTATTTAAAT GTGTCCTATT ACACAGTGAG TTAACCTCA AA 52

SEQ ID NO:4348

LENGTH:334

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05169

SEQUENCE DESCRIPTION:

GATCCGAGCG ACCATGGTGG CCCGGGTGTG GTCGCTGATG AGGTTCTCA TNAAGGGAAG 60  
 TGTGGCTGGG GGC GCCGTCT ACCTGGTGTG CGACCAGGAG CTGCTGGGGC CCAGCGACAA 120  
 GAGCCAGGCA GCCCTACAGA AGGCTGGGGA GGTGGTCCCC CCNGCCATGT ACCAGTTCAG 180  
 CCAGTACGTG TGTCAGCAGA CAGGCCTGCA GATACCCCAG CTCCAGCCC CTNCAAAGAT 240  
 TTTACTTTCC NATCCGTGAC TCCTGGAATG CAGGNATCAT GGACGGTTGA TGTCAGNTCT 300  
 NNTNGGTGGC CCCTTTCAAA GGGNCNGGTG AGTN 334

SEQ ID NO:4349

LENGTH:146

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05170

SEQUENCE DESCRIPTION:

GATCCATCAA ATTGAACAAT CTGTTGTAAT TAAAAATTTT GGCCACTTTT TTCAGATTTT 60  
 ACATCATTCT TGCTGAACTT CAACTGAAA TTGTTTTTTT TTNCTTTTGT GATGTGAAGG 120  
 TGANCATTCC TGATNNNGGC CTCNNN 146

SEQ ID NO:4350

LENGTH:257

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05172

SEQUENCE DESCRIPTION:

GATCTCAAGC CTCTTCTGAA CCCAGGCTT TCTTGAGTCT CCATATGAGC ATTTGCCTCT 60  
 GTGGGCACAA CTTCAAGTGT CCTTTGTGAG GAAATGTGCA TCTCTGGNTG GTGAACTTCC 120  
 ATCCCTCAGA GAGAAATAGA AGCACAAATT TGAAACAAGC TGTCTGTCTG NGNNNNNNCT 180  
 TTATGTCTTG GAACTTTAT TTATCCATCC AAGCTTTNTT TTTTTTTTAG CCTTNNGGG 240  
 CAGGNAACCA TCCAGGN 257

SEQ ID NO:4351

LENGTH:73

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05173

SEQUENCE DESCRIPTION:

GATCTGTCTA CTGAGAAGAC CCAAATCTTG GTTCTAAAT GCCATTCTTC AATAAAAGGA 60  
 ATTGGGTTTC AAA 73

SEQ ID NO:4352

LENGTH:73

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05174

SEQUENCE DESCRIPTION:

GATCTCCTTC TCCNTCCTGT CCTGTCCTTG CCCCTCAGGA CTGCTGAAA ATAAATCCTT 60

TAAAATAGTG AAA

73

SEQ ID NO:4353

LENGTH:306

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05176

SEQUENCE DESCRIPTION:

GATCCAAGCA GGGGGATGAA AAACCTCAGCA GAGAAATTCG AGACCATTTT CCAAGACTNT 60  
CCCCCTTCTCC TCAGGACCCC CTGGCTCAGT NCTTGAAAAA CGGTGTCATA TTTAGTCAGA 120  
GGCCCCACCC CCAGGAAGCA TGGATGGGGA TGAAGGCACA GCGTCTCCA ACCTCAGAGG 180  
CCCTTTGTGG GGTCAAGACA CAGAGTGGGN AGANGAGACT GATGCAGGCC TACCAGTNCC 240  
TGGCTTTTGG TCTGGGGCTG GAATAAAGAG GTGNCTTCAG CTGTTTGNN CGAGAGGCAG 300  
GGTAAA 306

SEQ ID NO:4354

LENGTH:76

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05177

SEQUENCE DESCRIPTION:

GATCAACTGG AACCTCTGTA TCATGCGGCT GAATCCCTT TTTCCTTTAC TCAATAAAAG 60  
CTACATCAGA CTGAAA 76

SEQ ID NO:4355

LENGTH:52

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05178

SEQUENCE DESCRIPTION:

GATCAGGCTT TTAGGACCTA GGAAACAAAT AAAGAGGAAT TTGTTGCTGA AA 52

SEQ ID NO:4356

LENGTH:268

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05180

SEQUENCE DESCRIPTION:

GATCCTTATT CTAGCTACAA GTCAAAGATA ACTCCTGGTC CAGACAAAAC ACCTGGCCTA 60  
TCACAAGCTG ACTAAAAATC TGCACCTTGG GCCAGCGCAG GCAACAGTAA CTNTGACAGG 120  
TTCAAATTAG ACCTCACACT TTCTACTCAT ATTCTAGTCA CTGGACCCAT CTGANTCAGT 180  
AATCCCTNCT GCGCGGTCCT GGAGTAAGT CTTAGAGATA TTATAGCAAG TGGCAAAANT 240  
AAAAGAGGGA TTTGCTANGA NTATCAAA 268

SEQ ID NO:4357



LENGTH:114

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05181

SEQUENCE DESCRIPTION:

GATCTCAAAT ATAAATTGA GATTATACAT GTAGTTATGT ATAGNGNCAT GTAGTTACAC 60  
ATAGTTTGT ATTTNCCTGT TTTTCTCA TATGAGCATT TNCTATTAA NGTN 114

SEQ ID NO:4358

LENGTH:179

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05182

SEQUENCE DESCRIPTION:

GATCTACACG TGTTGTTTG TTTTNCCTT ATTGATGCAC GNATGCTTTT GAACAGTAGA 60  
GNGAAATGCT AGACATGGAG AATCTGCTCT GTTTGTCCTN TATACATTTC TGTAGTTAAC 120  
AGAACACTGT AATGTGCCTT GGAGCTTAGT AACTNGTAAT AAATTCAATN GATATTAAA 179

SEQ ID NO:4359

LENGTH:85

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05183

SEQUENCE DESCRIPTION:

GATCCTAAAT CCTATGTAGG CTNNGGTTAT TAGTGTATAT TTGTGCTTA AAACAATTTT 60  
GAAAGTNAAA AAAATATTTT TTAAA 85

SEQ ID NO:4360

LENGTH:194

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05184

SEQUENCE DESCRIPTION:

GATCTNATTT TGAGATTAAA AAAAATACTT CTAGCTTTAG CCAGGTGTGC ATGTNGCTGC 60  
CATTTTGCAT TTTTGAATCA TCTTGTGTAA TTGTCACCAT GAAAGTGTTA CTCAGAAATNG 120  
TCATAGATTT NNTNTTCTT GTGCAAAAAC ATGGAAAATT GTCAGTACT TTGTTTGTAG 180  
GTTTCCCCGG NNNN 194

SEQ ID NO:4361

LENGTH:216

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05185

SEQUENCE DESCRIPTION:

GATCTGCTGT ATGTTACAGT TATGTAATTT GACTTGTTTC AAAATTATTA AAGTTTAAAG 60

TGTATGCATT CTA CTGGTCA ATAAGTAAAT ATATTCAGGC TCTGAATGTA GACAGATAAA 120  
 TATATAAATA TAGAAAGTAC ATTTGTTAGA ATACAAACAA GAATAAAAAT TGAGTACAGA 180  
 NTGAAAACCT TATTAAATTT TATCACTCCA TATAAA 216

SEQ ID NO:4362

LENGTH:333

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05186

SEQUENCE DESCRIPTION:

GATCAAACTC AAGCTCACAC CTGTACCTGA TGGGAATGAA CATAATGTGA AGAAACTTAT 60  
 TTCCAGTGT AAACGCAGTT GTACAGAAAA AAAATGTTTT GGGTATAAAT CTGGGTTTTTC 120  
 AAAACCAGCT TTNTTCTATA TATAAATNAT GCTGCTATTA CAGATTTAAC ATTNCTGTT 180  
 AAAGGAAAGT CTACATTTTC TGCCTGTNCA GAACTGTTA ATAGCAGTNN CTCTGAGTG 240  
 TATTNCCCTT GGTATGTTTT TNAACCTATT TTCCTTNAAG CCGAAAATAT TGCCAATTGG 300  
 ATANGGTTAG CCTTANNAAG TNNAATAAAN NAN 333

SEQ ID NO:4363

LENGTH:185

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05187

SEQUENCE DESCRIPTION:

GATCAGCCAG TCTCTTTCAT CATCAAGCAG ACATACTCAA GGTACCAACA CAGCAAAGGC 60  
 ACAAATGTC TCTATATCAG TATTTTTCAT GGTATATGTG AGACCCATTA GTGAGGCATG 120  
 AAATCAATTC TGTGAGTCAC AATGAACATT TGTCTAAAAA ACATAATAAA NTGTAAAATA 180  
 CCAAA 185

SEQ ID NO:4364

LENGTH:108

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05188

SEQUENCE DESCRIPTION:

GATCCTTTCC CATTTATTCT GGGAAGATGT TTTCAAAC CAGAGACAAG GACTTTGGTT 60  
 TTTNTAAGAC AAACGATGAT ATGAAGGCCT TTTGTAAGAA AAAATAAA 108

SEQ ID NO:4365

LENGTH:201

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05190

SEQUENCE DESCRIPTION:

GATCATTTGG CTCTTTTTTT CCTTCAGAA GAGTNGCATC AACAAAGTTA ATTGTATTTA 60  
 TGTATGTAAA TAGATTTNAA NCTTCATTAT AAAATATTGT GAATGCCTAT AACTTGTTTN 120

NCAATGTGNT TGTGTGTGTT TCTAAGGACT TTTTCTTNGG NTTGCTAAAT ACTGTAGGGT 180  
TGAAAATGCT TCTTTCTACT N 201

SEQ ID NO:4366

LENGTH:118

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05191

SEQUENCE DESCRIPTION:

GATCCTTCAT GGACANTATT CTAAGTATA CGTAGACACT TACTTGGAAA TTTTGGACA 60  
TTATATAAAA TGAGTGCTAT CTGTGAAATT GGTATATTA GGTGGCTNNN NCTAATGN 118

SEQ ID NO:4367

LENGTH:277

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05192

SEQUENCE DESCRIPTION:

GATCTGAGGT CTCAAGCTAG GAGAGACTGA GAATTTTAAT CAGTTTGGGC ATATAGTTTG 60  
GACTGAATCA CATCTGTAGT ACTTAGCCAA AGACAATTG GAGGAGAATA TCAGCCTTCT 120  
GGAAGTAGCT ACTCCTGNT CAATGTAAAG TGTCGCAGAT ATTCAATAAA ATGGCAACCT 180  
GTTATAATTT TTTGAATAT CAGCCTTCTG GNAGTAGCNA CTTCTGTAN CAAANGTAAA 240  
NGTCGCAGN TATTCAATAA AATGGCAACC TGTTTTN 277

SEQ ID NO:4368

LENGTH:209

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05194

SEQUENCE DESCRIPTION:

GATCTCTTGA CAANTGTGTA TGTTAACTTT TTAGCACATG TTTTGTACTT AGTACACGAG 60  
AAAACCCAGC TTTCATCTTT TGTCTGTATG AGGTCAATAT TGATGTCCT GAATTAATTA 120  
CAGTGTCTTA TAGAAAATGC CATTATAAAA TTATATGAAC TACTATACAT TATGTATATT 180  
AATTAAAACA TCTTAATCCA GAAATCAAA 209

SEQ ID NO:4369

LENGTH:58

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05195

SEQUENCE DESCRIPTION:

GATCGTGTG GAGACTNTNA CACAGTTTAA ACACATCAAT AAATACTTTA ACTTCAAA 58

SEQ ID NO:4370

LENGTH:108

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05196

SEQUENCE DESCRIPTION:

GATCGAGGTA GTAAAGGCCA TCCACATTTT AAAGGGTTAT TTGTCTNTNN TATAATNCGT 60  
TTGCTTTCAG AAAATGTTTT AGGGTAAATN CATAAGACTA TGCAATAN 108

SEQ ID NO:4371

LENGTH:190

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05197

SEQUENCE DESCRIPTION:

GATCAACAG GGACACAAAA GCAAGTATCA TGGGAGGAAC TTGAAATCTC TGNGGACAGC 60  
AGAAGCTGAC TTCAACTCTN ATAATTGTGG CATCCATAAA TTGCAAATAT AGCCCTGAAT 120  
AGATACACAC AAATGTCTAT AATGAAGGCC CAGCAGAATG GAATGTGTGA CCATCTTCAG 180  
GAAGAAAAATN 190

SEQ ID NO:4372

LENGTH:241

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05198

SEQUENCE DESCRIPTION:

GATCAATCCC TAGTAAAAGC CCTGGACACC TAGGCATGGG TGAGCTACTN TGGTTGGTAA 60  
TACTCTGTGC ACACATCATT GTAGCCACAC ATCATTGCTG GGAGAATTAA GCATTATCCT 120  
GAAGACTCTG CCAGGAGAGG ATAATTGGAA GTTCTCTTGG ACCTTACCTT ATGTGCCTTT 180  
NTTCATTGCT GATTTTAATC TGTATCCTTT CACTGTAATA AACTGTAACT ATGNGTGCAA 240  
A 241

SEQ ID NO:4373

LENGTH:51

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05199

SEQUENCE DESCRIPTION:

GATCGTTCAT TGCCTTTCCA GGGTTATTTA GTAAAGTTTG TTGAAAACAA A 51

SEQ ID NO:4374

LENGTH:153

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05200

SEQUENCE DESCRIPTION:

GATCTCAGGT GATTACCCG CTTCTGCCTC CCAAAGTGCT AGGATTACAG ACATGAGCCA 60

CCGCACCTGG CCATACAATT GCCTTCTATA TGTTTTTNAT TTAATATGAC ATTTGTATTT 120  
 CCCCATGTTA TTAAAAAATT CTNTATAAGC AAA 153

SEQ ID NO:4375

LENGTH:103

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05201

SEQUENCE DESCRIPTION:

GATCACCCCA CCCTGTGAAG AGGCAGTTGG TGCTGGCAGT AAGCTGGTTT CCTCCTCTCC 60  
 AGGGTTTTCC TAGTAATAAA GGTGTTNCTG TTGANGCCGT AAA 103

SEQ ID NO:4376

LENGTH:390

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05203

SEQUENCE DESCRIPTION:

GATCACATTC ATTCCATAGG TAGCTTTACG TGTGGCTACA ACAAATTTTA CTAGCTTTTT 60  
 CATTGTCTTT CCATGAAACG ANNTGANGAA AATGATTTTC CCTTTCAGG TTGCACACAG 120  
 TTTTGTTTAT GCATTTCCTT AAANTTAATT GTAGTCTCNA GGATACAAAC CATAGTAGGC 180  
 AATACAATTT TAGAATGTAA TATATAGAGG TATATTTAGC CTCTTTTAGA AGTCAGTGGA 240  
 TTGAATGTCT TTTTATTTTA NNTTTTACAT TCATTAAGGT GCCTCGTTTT TGACTTTGTC 300  
 CATTAAACATT TATCCATATG CCTTTGCAAT ANCTAGNTTG GTGNAAAGCT AACCAAGTGT 360  
 TGTAACCANT AATCNTTGT TTNGNGGTGN 390

SEQ ID NO:4377

LENGTH:144

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05204

SEQUENCE DESCRIPTION:

GATCATATGC AGGACTCTTT CTTAATGCAG CCTGAGACAA ATCTTGCAAT ATGAAGAGAT 60  
 GATTTCAGG TTTTATTGAA TAAATGAATT GTAATTTTTA CTGAAATTA TCTTATTAG 120  
 TATAATAAAT ATTACAATAT TAAA 144

SEQ ID NO:4378

LENGTH:386

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05205

SEQUENCE DESCRIPTION:

GATCCCACAG CGAAACACTG GCCACTGGCT ACCAGTATTN CTTCCAGAG CTAGGGGCTG 60  
 CCTTAAAGGA AATTGTAGCC TAAGTAGGTC GTGGCAAGGG CCTGAGGCCT GTTCCTCACA 120  
 GGCTTCAGG TTAGGCACTG TGAATAGGCT CAGCTCCTCT AGAGAGCTGA AGCCATCTGG 180

TTCTTAGATT CCTCTCCAG TCCTCTTCC CATTGTTCTG TTGCTCCACC TTATTGTCTC 240  
 AAGGCCGTAA TCTCATCAGG TTGGGACATT AATCTTTTCA ACTCCTTTGT AAAGATTTC 300  
 CAGTTTGGTT TCTCTACATG TNCTGCAGCT GGCCNCAATT CTCCTTTNAC GTTGTGTAGA 360  
 GAATGNTCTG CAGTTTTAGG GCAAGN 386

SEQ ID NO:4379

LENGTH:174

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05206

SEQUENCE DESCRIPTION:

GATCTAAACG AAAAATAGTT TCTTGTTTAA ATTCACATAA GGCAATNAGA TATGGAAAGA 60  
 TGACAAGATA CGTATAACA TTGGTTTGCA TTTTATTAAA TNATTCTAAT GCAAATCTTG 120  
 TATAAAGAAC CCATGATGTT TTGTAACTTT CTAATTAAAA TGTTCAAAAT GAAA 174

SEQ ID NO:4380

LENGTH:207

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05207

SEQUENCE DESCRIPTION:

GATCTTGGTC AATAACTGGG AGATGGACAA ACTAGAGATG GAAGATGCAG TCACATTTT 60  
 GAAGACTAAA ATCTATTCAG TAGAAGCTCT TCCTGTTGCT GCTGTAAATG TGCAAAGCAC 120  
 ACAATAAAGT GAAATCAAC CTTTTCATAT TAGGAGACAT GCATTGTAA AAATTAATAA 180  
 AGATGACAAG TCAGTTGTCA ATGGAAA 207

SEQ ID NO:4381

LENGTH:189

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05208

SEQUENCE DESCRIPTION:

GATCAGCACC TTGGCCGTGA TTCCAAGGT CCCAGCCAAA GCAAAGGGCC AGTTGTTTCA 60  
 GTTTAAACAG ACATGTCTTT AGTCTAATAA AATTAGTTAA CTGCCAGTAA AGTTATTTGT 120  
 TAGCTTTGNT GAAAGCTATG NNGGTATCTT TCCCTAATCA TCAAAGTAAA TAAAAANTCA 180  
 TTTCTNAAA 189

SEQ ID NO:4382

LENGTH:502

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05209

SEQUENCE DESCRIPTION:

GATCTGTTCT TTTTAAGTTG ATTCGGGAGT GGCATTCTTT TATACCCAAA GACTGTAGTG 60  
 CATCTTGAAG AGCTCAAAGC ACATGACCGC ACAAATGCTT ACAGGGTTTC CTCCCGAGTA 120

ATCCAATCTC ACTCCCCTTG TAAGGGAATT CTGGGGCAGC TATGGTTTGA GTATGCAGTT 180  
 TGCATCGTGT TTCTACCTTT AGTACCTTGC CACTCTTTTA AAACGCTGCT GTCATTTCCT 240  
 ATTTCTTAGT ACTAATGATT CTTTGATTCT CCCTCTATTA TGTCTTAATT CACTTTCCTT 300  
 NCCTAAATTT GGTGATTG CATATCAAAT TCTGGTAAAA TNGTTTTNGG TAAANCATAT 360  
 TTACCCNCAC TTGGGGTAAA TCCCAATTCC TGGNTAGGNN CTTTAAAAA NGGGTTTTTN 420  
 NTTAATNGGG NNAATCCAAT TATTAATAAN GGGGGGNCCN TTTTNAAG GGNGGAANAA 480  
 ANGGNGAGGG GGNAGNTNGN GN 502

SEQ ID NO:4383

LENGTH:383

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05210

SEQUENCE DESCRIPTION:

GATCTCTGGT CAGAGTGAAC TCTTGCTTCC TGTATTCAGG CAGCTCANAG CAGAAAGTAA 60  
 GGGGCAGAGT CATACGTGTG GCCAGGAAGT AGCCAGGGTG AAGAGAGACT CGGTGCGGGC 120  
 AGGGAGAATG CCTGGGGGTC CCTCACCTGG CTAGGGAGAT ACCGAAGCCT ACTGTGGTAC 180  
 TNAAGACTTC TGGGTTCTTN CCTTCTGCTA ACCCAGGGAG GGTCTAAGA GGAAGGTGAC 240  
 TTCTCTCTGT TTGCTTAAG TTGCACTGGG GGATTTCTGA CTGAGGCCC ATCTNTCCAG 300  
 CCAGCCACTG CCTTCTTTGT AATATTAAGT GCCTTGAGCT GGAATGGGGA AGGGGGNCAA 360  
 GGGTCAGTCT NTCGGGGTNG GNN 383

SEQ ID NO:4384

LENGTH:258

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05211

SEQUENCE DESCRIPTION:

GATCAAACTG TTGGAGGAGA AGCTGAAGGA GGCTGAGACC CGAGCAGAGT TTGCCGAGAG 60  
 GTCTGTGGCA AAGTTGGAGA AANCCATCGA TGACCTAGAA GAGACCTTGG CCAGTGCCAA 120  
 GGAGGAGAAC GTCGAGATTC ACCAGACCTT GGACCAGACC CTGCTGGAAC TCAACAACCT 180  
 GTGAGGGCCA GCCCCACCCC CAGCCAGGCT ATGGTTGCCA CCCCACCCA ATAAACTGN 240  
 TGTACTAGN CTNTNAAA 258

SEQ ID NO:4385

LENGTH:174

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05212

SEQUENCE DESCRIPTION:

GATCAATGAA AGGAGACATC TGGAGTGTGC GTGCTTCTTC AGAGGGACGG GTGATGGGCA 60  
 GATTGAAAA AGCACCGCAG ATGGGAACCT TAATCTTTCT TTTCTAAAT TGATGCTATG 120  
 AAAATTGCG TTTTCTGTAA CTTGTAAAAA CTAAAGTTG CTTGTCTACT GAAA 174

SEQ ID NO:4386

LENGTH:62

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05213

SEQUENCE DESCRIPTION:

GATCAGGCAA AAATAGTTTT CCAAAGTTAT TTTAATAAA GTATATACAA AATTCTTATA 60  
AA 62

SEQ ID NO:4387

LENGTH:217

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05214

SEQUENCE DESCRIPTION:

GATCTAACGC CACACCTCCG TGAAAACACA ANTCNCACAG CAGGAACCAC NTGAACCTGG 60  
ACATCAGCAG TTTATTCAGC AGATGCTTCA GGCTCTTNCT GGAGTAAATC CTCAGCTACA 120  
GANTCCAGAN GTCAGATTTC AGCAACAACT GGAACAACCTC AGTGCAATGG GATTTTNGAN 180  
CCGNGAAGCA AACTTGCAAG CTCTAATAGC ANCAGGN 217

SEQ ID NO:4388

LENGTH:95

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05215

SEQUENCE DESCRIPTION:

GATCTATGCA GACAACTGTG TATTCTGTTT TATAACAGTT TGTTTGAATT TACTTACAGT 60  
TAAAAAATTT AAATATATTT ATGTTTGTAC GGAAA 95

SEQ ID NO:4389

LENGTH:192

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05216

SEQUENCE DESCRIPTION:

GATCTGGGTG AAGGGGAGAA CCTGCCATCT TATCCCTACC CCCCCGGGGC CCTCAAGCTT 60  
ATTTTCTTGT TGAAGAAACA CAAAACCTC GAGATTCATG TACTGTATGT TGGAGAAAAA 120  
AAATTACCTA ACTGTTCCCC CAAAAAGTC AGTATNTTTT GTACTTTGTA AAAGTGTTNGG 180  
TTAAAAATGA AA 192

SEQ ID NO:4390

LENGTH:135

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05217

SEQUENCE DESCRIPTION:



GATCTGCAGC CTTTGGGTA TCAAATGGGT CAAAACCATG GGACCTGCCA CCTCCCATCA 60  
 GCAATTCTGG AAATGCACTA TTTCTACTGG TGNTCTTGCT TTTTTTTTTT TTNNATTTTC 120  
 TNGNTGAANT GCCAN 135

SEQ ID NO:4391

LENGTH:270

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05218

SEQUENCE DESCRIPTION:

GATCGTANTT AGTCCTTTTC ATCTCAGCTG CTCCTTAAAT CAGTGCAACC CCTCCAAATT 60  
 AATGTGAATT GAAACTTGCA TTGCTTTTCA ACTTAATTGA ATACTTACTA TATGTGAACC 120  
 ACTGCACAAA ATAGGGGAAG AAGATGTGGG AGACAAAGAT GTGGAGCCTG TCTTCAATAA 180  
 ATTTACAGTT AGTTTCAGGG TACATTGTTT TNCTNCTGCT GTTAATTAGG TGTATCCCCA 240  
 AGACAATAAA TACATGGNTG GGAAAGTAAA 270

SEQ ID NO:4392

LENGTH:123

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05219

SEQUENCE DESCRIPTION:

GATCAAAATT GGNTAAATTC TATTGTAACA ATTCGTTGG TCATTTTGGG CCATAAAATT 60  
 TTTTGTAAAT AGGAATTTGT ATAAAGCATT ACTCTTTTTC AATAAATTGT TTTTAAATT 120  
 AAA 123

SEQ ID NO:4393

LENGTH:288

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05220

SEQUENCE DESCRIPTION:

GATCNCACCA GTNTNCTNCA NCCTGGGCCA CAGAGCAAGA CCTTGACTCA AAAACAACAA 60  
 CAACAACAAC AAAAATTCCT GAAGATTTTG CATTCTGTCC CACTATCCAT TGGTTTTCAT 120  
 GTCAAGATAA TGTGAGAAAT TCTTACAAT TGCTTCAGA AGGANTAGCC TTTTGATTTA 180  
 GTGCACAGGT GTCCAGTCTT TTGGCTTCTC AGGCCACAT TGAAGAAGA ATGCTCCTGA 240  
 GCCACACATA AAATACACTA NTGNTAACAA CAGCTGATGG AGCTTAAA 288

SEQ ID NO:4394

LENGTH:156

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05221

SEQUENCE DESCRIPTION:

GATCCTNCGT TCTNTTGTTA TAGATTAGTT TCGTTTCCT ACAATTTTAT ACACATGGAA 60

TAATACTATA GGTACTCTTG TTTGGCTCCT NCCATCCAGC ATAATAAGTT TGAGATTCAT 120  
NCATGTTGTT ATATGCGTCT ATGTTTCATTC CTNNNN 156

SEQ ID NO:4395

LENGTH:149

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05223

SEQUENCE DESCRIPTION:

GATCCTNCTT TTCCTTCATG NCAGCACAAG TGCTCACC GGCCAGAGCC AGGGCATGGA 60  
TATGACAAGC AGGGCAGCCT GGACACTGCC CTCACAGGAC AGCGCCAATA ACAATACAGT 120  
GTCTGAGTAT CTCCAGGGGA AAAAATAAA 149

SEQ ID NO:4396

LENGTH:204

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05224

SEQUENCE DESCRIPTION:

GATCCTGCTT GGNCTATCAC AGAGCATTGA CCATTGGCTT CCCTCATCTG AGNCGTGGGA 60  
GAGCANACTG GATAGATGAG AATTGTTTTA AAACAATTGT GAACAGAAAC TGNAGATGGT 120  
ACAGTNTAC ATCTGCACCT GCCCTTTTTT CATACCACAA AAGTATTTTT NNAGTACTGT 180  
ACTGGACTTT TTGCNAGTNN CTAN 204

SEQ ID NO:4397

LENGTH:213

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05227

SEQUENCE DESCRIPTION:

GATCCTGATG TATGAGGAAA AAGCGAGAGA AAAGGAAANG CCAACAGGCC CCCCAGCCAA 60  
GAAAGCTATC TNTGAGTTGC CCTGATTGTA AGGGAAAAGG GATGATGGGA TTGAAGGGGC 120  
TTCTAATGNC CCAGATATGG AACAGAAGA CAAANTNTA AGCCAGAGTC AACAAATTAA 180  
NTAAATTACC CCCTCTCCA ANAANTANTT TNN 213

SEQ ID NO:4398

LENGTH:67

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05228

SEQUENCE DESCRIPTION:

GATCCATCTG AGGAATCACT CTGTGTTGCA CTTATGCCCT CATAAAANAT ATTTATTGAA 60  
GAATAAA 67

SEQ ID NO:4399

LENGTH:70

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05229

SEQUENCE DESCRIPTION:

GATCAATGCA TTTNATACGG ATATAGACCT AGGGCTCTGG AGGGTGGGGN ATTGTTAAAA 60  
CACATGCAAA 70

SEQ ID NO:4400

LENGTH:148

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05230

SEQUENCE DESCRIPTION:

GATCTCTATA GAGGCTGGAA TGGCCACAGA GAATCTAAAT NTGAAAACAA ACATGTCCTG 60  
AGGGTGTGCT CCAATACCAC CCNNTAATAC TCTCCTGAGA TGTGAAGGCT NGAAATGAGA 120  
ATGCCATNTT ATTGTNACTT NCAAAACGN 148

SEQ ID NO:4401

LENGTH:210

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05231

SEQUENCE DESCRIPTION:

GATCCTTGTT TTGAGCTCTC AGAATCACTC AGACAACATT TTGTAAGTGC TGCTGTTGCT 60  
TTCTACATAC ACCTTATAAA GTGACATTTC AAAAGAAATA AGGTGCCACA GTTTTAAACC 120  
AGAAGGTGGC ACTCTGTGGC TCCNTGTAGT ATTATAGCTA TACTGGGAAA GCATAGATAC 180  
AGCAATAAAG TACAGTAATT TTACTTTAAA 210

SEQ ID NO:4402

LENGTH:71

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05232

SEQUENCE DESCRIPTION:

GATCCTGTG CAAACTGTGA ATATTCTGAT GATGCCAGTA CAGTTTGATT TATTAAATGT 60  
GGGTCCTCAA A 71

SEQ ID NO:4403

LENGTH:240

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05233

SEQUENCE DESCRIPTION:

GATCTGAACC CGTCTCCCGG GTGCTGTAAA TAGTCTGATA AACGTTTACA CAGTCTAAAA 60

TTACCCTTTA TATTTGCTGA ATACAACTCA TCTTTTGTAG TTTAAAATTT CTATTGTTTT 120  
 GGAGCTAGCT GTGAGTTTCT AGAAGTGTAC AGAGTTGCTC CNGTGTTCCT GGGTCANGTT 180  
 GAGTAGGGAA TAAATAAATC TGATGCNGCC TCCTGAGGCT GCCGGGGGGT TTCTGCTAAA 240

SEQ ID NO:4404

LENGTH:67

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05234

SEQUENCE DESCRIPTION:

GATCAAGNAT ATTTTTTATT TTTAAGAAAG CATAACCAGC AATAAAAATA CTATTTTTGA 60  
 GTCTAAA 67

SEQ ID NO:4405

LENGTH:173

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05235

SEQUENCE DESCRIPTION:

GATCTAATTC CAAGGACTTC TCCACAGCTA AGTNAGATGC CTCANACCAT TAGGTGATGC 60  
 TTTGGACAGA ACAGAGTATT TNAATCTTGT GTTTAAAGCA ATTCCTTGGC TTCGGCTCCT 120  
 CACCACTTTC TATGCCAGTN TCCCATTAT GTCCCTAGTA ATGCCTATGC AAA 173

SEQ ID NO:4406

LENGTH:263

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05236

SEQUENCE DESCRIPTION:

GATCCCAGCA GTGATGTTGG TTGAGGCAGC AAACAGATGG CAGGATGGGC ACTGCCGAGA 60  
 ACAGCATTGG TCCAGAGCC CTGGGCATCA GACCTTAACC ACCAGGCCCA CAGCCCAGCG 120  
 AGGGAGAGGT CGTGAGGCCA GCTCCCGGGG CCCCTGTAAC CCTACTNTCC TCTNTCCCTG 180  
 GACCTCAGAG GTGACACCCA TTGGGCCCTT CCGGCATGCC CCCAGTTACT GTAAATNTGG 240  
 CCCCCAGTGG GCATGGAGCC AAA 263

SEQ ID NO:4407

LENGTH:65

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05237

SEQUENCE DESCRIPTION:

GATCAGAATG TTCTAAATNT TGACTAGTTA CTTTTTATTA TGAGTTAATA TAGTTTAGCA 60  
 GTAAA 65

SEQ ID NO:4408

LENGTH:124

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05238

SEQUENCE DESCRIPTION:

GATCTCTATA TTAAATNCTA AAATGGGATT AAAAGAAGAG TTGGAGAATT CACACTTATT 60  
GAGTAACTGA TGTACATAAA CCTGGAATTT CTGAATTCCA AATAAATAAA TTTCACCTTT 120  
TAAA 124

SEQ ID NO:4409

LENGTH:234

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05239

SEQUENCE DESCRIPTION:

GATCTATGCA GTATACATTT TNCAGGCTGA AATTCAAGGG GAATCATTCT GATTATNCTT 60  
ACTACAAATG GAGATGGCTA TTATGAAACA GCATGAGCAT GAGCCTTTNA TCTNTNATAC 120  
TTAGTGATAT ACTTTGCTTG AAAATCACTC AGCAAAGTAG TTCACATGAT GTGTTATCAT 180  
ATTTGANGTG TGGNTTNTCT CAAAATCATT GNCTTTAAGG NGCTCATTNC TGAN 234

SEQ ID NO:4410

LENGTH:191

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05240

SEQUENCE DESCRIPTION:

GATCTNTTTG TATGTNACGT GTTAAGGGCT TGTTTGGTAT CCCACTGAAA TGTTCTGTGT 60  
TGCAGACCAG AGTCTGTTA TGTGAGGGG ATGGGGCCAT TGCATCCTTA GCCATTGTCA 120  
CAAAATATGT GGAGTAGTAA CTNAATATGT AAAGTNGTAA CATACATACA NTTAAAATGG 180  
ANATGCAGAA A 191

SEQ ID NO:4411

LENGTH:308

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05241

SEQUENCE DESCRIPTION:

GATCACCTGA GCTGCCTCAG ATTCCATTTG GTCCTCTCCT TCCTGGAAGG CTCCTTTTA 60  
TGTTTTGTTT TAATCCCAA TGTCTGAATG TTTTGCAGTG TGTAGGGGTT TGAGCCCTTT 120  
GTTTATTCTC CTCCTTTTTT CCTCCGCTT CCTCTCCAT GAAGTGATTC TGTTGACAA 180  
AATGTATACT GCGCGTNTC TTCCTGGTT TATCTGCAGA AATNNCTCTG GGCTTTTNTC 240  
GGTGTAGAT TCAACACTGC GCTAAAGCGG GGATGTTCCA TTGAATAAAA GAGCAGTGTG 300  
GTTTTAAA 308

SEQ ID NO:4412

LENGTH:210

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05242

SEQUENCE DESCRIPTION:

GATCCACCCA CCTTGGCCTC CCAAAGTGCT GGGATTACAG GCGTGACACN CAAACCCAGC 60  
CACCAATTTT ACTTTAGGTA AACTTTTATT TTCAAGCTTT TGTGGTGTT GCAAGTGTA 120  
ATCTGTTTAA TAAATGTTC TATAATATA ACCACTATTC CTTGTAAGCT ATTTAAAATA 180  
AATTTTAAAG TCTTCAAGT AAACACCAAA 210

SEQ ID NO:4413

LENGTH:337

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05243

SEQUENCE DESCRIPTION:

GATCTGAATT TAGGNACATT TCCTTTTCT GTGGGAATCA CAAGAGTTTA TCCACTAAAA 60  
AAAGATATGT AAAAAAGATA CTTTCCAGCA CATAAATAAA GGCTGGAATT TTACAACCTG 120  
ATGTATATAT TAGACAGTTC TAGGATGTTA GTTCCCTNCA TNCCAGAGCT ATGCTTGTGA 180  
TACAGCCCCT TTTCTTATAA AGTCAGTTAG ANGGACTTCC TTAACAATGA CTATTATAAT 240  
GNCTTNCTTA AAATACAGTT TTGTATTCTG TCAATGCAAA TATAAGACAG GTTGTGCCNT 300  
AATCATGTAN CANGNNTATT TTGNAGNTTT ACATATN 337

SEQ ID NO:4414

LENGTH:120

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05244

SEQUENCE DESCRIPTION:

GATCAGCTAG CTACCTTCTA CTTTCCATTT TTCAAGTGGA TTGTTCTCTT AATTTGTATA 60  
TAACCTGTTG TCTAAATTTT ATGTACAGTC TTTTATAATA AACCATCTC CTATATGAAA 120

SEQ ID NO:4415

LENGTH:185

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05245

SEQUENCE DESCRIPTION:

GATCTGGCTC ATCCATCTGC ACACTGACCA CGCTAAGAGC TGTCTGCAGT GATGGAAACC 60  
TTCTCTAGCT GTGCTGTCTT CTATAGTGGC ACCAGCTGCC TGTGGCTACT GAGCACTTCA 120  
ACTGTGGCTG CAGAGACTAT GTTAAATTGT ATTAAATCAT AATTAATTGA ATTGTAAACA 180  
ACAAA 185

SEQ ID NO:4416

LENGTH:58

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05246

SEQUENCE DESCRIPTION:

GATCTTAAAA TTCGTTTGCC TTTTAAAGC TATATTAAAA ANGTATTGTT GAATCAAA 58

SEQ ID NO:4417

LENGTH:109

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05247

SEQUENCE DESCRIPTION:

GATCCACAAG ATTNAGAAAA TATTATATAG TTAGATAATA ACATTCTTGT CTAATGATAT 60  
CCNANCTNGT TACAAAATTN TTAAAACTT AAATAAAAAAC ATGCATCTN 109

SEQ ID NO:4418

LENGTH:363

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05248

SEQUENCE DESCRIPTION:

GATCCCTCTA CAGAGCTTCC CTGACTCATT CTGAAGGAGC CCCATTCTTG GGAAATATTC 60  
CCTAGAAACT TCCAAATCCC CTAAGCAGAC CACTGATAAA ACCATGTAGA AAATTTGTNA 120  
TTTTGCAACC TCGCTGGACT CTCAGTCTCT GAGCAGTGAA TGATTCAGTG TTAAATGTGA 180  
TGAATACTGT ATTTNGTATT GTTTCATTG CATCTCCAG ATAATGTGAA AATGGTCCAG 240  
GAGAAGGCCA ATTCCTATAC GCAGCGTGCT TAAAAAATA AATAAGANAC AACTCTTTGA 300  
GAAACANCAA TTTCTACTTT GAAGTCATAC CAATGAAAAAN ATGTATATGC ACTTATAATT 360  
TTN 363

SEQ ID NO:4419

LENGTH:266

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05249

SEQUENCE DESCRIPTION:

GATCACATTC AGGATAAGTG TACAGAAGAA AATACGGGTG TTTACTCTTT AGGGAAGTGG 60  
AAACACTCCC TGCATTGATG TACATTTTAA GAATGGCACT TTTGATACAT GTTATCATAA 120  
AGGTGCTTAA TAGAGCTGAA TTAAAGTTTT TCAAATCTGT AAACANNGCA AAAANGTAAA 180  
TTGTAGTCAT TTGATTATTT TTAAATNGG NGCTTTATAT TTNGTNTCA CTCAGAGTAA 240  
AAGCTGCAAT TTATTGTNCA CCCAAA 266

SEQ ID NO:4420

LENGTH:104

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05251

SEQUENCE DESCRIPTION:

GATCAAAGCA ATTTACAGAT TCAATGCTAT TCCTGTCAAA CCACCTATGA CATTCTTCAC 60  
AGAACTAGAA GAATAAACTA TTAAGGTTT GTATAAAGTT TAAA 104

SEQ ID NO:4421

LENGTH:256

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05252

SEQUENCE DESCRIPTION:

GATCTCAACA GTGTGGGGTG AACAAGAAGA CTGTATCTTC AGCCTTTTTC CTATAATCAT 60  
GGATGATTG GTCTTATTCA AAAGGACCGC ACATATTAGT ACTCTTAAGA GCATCTTCCA 120  
AGACTCCAGC AGNGAGCATT TAGAGAGTGT GTTGTCTTCC AGAGTCATGA ATGATTTTGT 180  
TTAGCTATCA GGTCTACTAC CTCTAAGGAC ATTCATAGC AGCATCTCTT GAGTTGCCTG 240  
CATCAGTGTG GTGGTN 256

SEQ ID NO:4422

LENGTH:255

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05253

SEQUENCE DESCRIPTION:

GATCTGAATA TAATTCGGT AAACAGCTGT CTTCAATTTT NTCCTCTAAA GAACTTAATT 60  
CATTTGTAC ATAAAATATA AGGAAATCTT TGTACTATTT TACAGTAACC ACAATCTAAA 120  
TATTACATA TACCCAAAAT TANCCTATGC TCATATATTA GGATGTGAGA NTATCATCTG 180  
TTTATGGACA CATGAAACCT CCTAATGACC TGGAATTGTT AGANTATNTG ACTTTTATA 240  
TGCAAAGTTT TTCGN 255

SEQ ID NO:4423

LENGTH:58

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05254

SEQUENCE DESCRIPTION:

GATCCCCGGT GGTTTTGTGC TCAAAATAAA AACTGATTAA ACCTTTGTGG CTGTGAAA 58

SEQ ID NO:4424

LENGTH:234

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05255

SEQUENCE DESCRIPTION:

GATCCTTTTC TTCTCTTATA AATCATCCTC TTAATGAAAA TTAGCCTAAC AAAAGTTTGG 60  
AGACTGGAAT CCTACTTTGA GCCACTGACT TGAAATAACT CTTTGGCAA GTTGCCTGAC 120



ATCCTGTCTT ACCAAGGTGG CAGGTTTGCA TTTTACTGC TTAACACATT TTTNTTTTTT 180  
TAACCATCTT NANCACAAATT NATCATATNN GNGGTNGGCC TANCAGGNTT TTNN 234

SEQ ID NO:4425

LENGTH:200

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05259

SEQUENCE DESCRIPTION:

GATCCACCTG CCTCAGCCTC CCAAANTGCA NGGTATTACA GNCANGAGNT TCTGCGTCTG 60  
GCAATAATGT AACTTTGAAG CTAAAAAATT AATCCCAGTT TGTAGCAATA ACAGAAGACT 120  
ATCTACAACG GAAGAAAGAA GCAACTGCCT TACAGTTCTG TAAAGANTTG GCAAGAAAAT 180  
AAAGCCTATA GTTGCCGAAA 200

SEQ ID NO:4426

LENGTH:84

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05260

SEQUENCE DESCRIPTION:

GATCTAGTCA TCTTCTGTAG CTACATAGTA CTCCTAATGT TAAGATTACC AAATTCAGCA 60  
ATAAGCCAA AATCAAACT GAAA 84

SEQ ID NO:4427

LENGTH:75

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05262

SEQUENCE DESCRIPTION:

GATCATAAAC CAGTGNATC AGACCTATGT GTAATAAGAC TCCTGTTAAT AAAAAATAA 60  
AAAGCTAAAA GCAA 75

SEQ ID NO:4428

LENGTH:424

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05263

SEQUENCE DESCRIPTION:

GATCTCAAAC TTGTCTTAAA TCAACAACCT TCTACTCATG TTAATGTCTT GATTAAATAT 60  
CACAATGCAA AATACACATT AAGTAAAAGA ATTCCAGCTG GTAAACATGA CCTGGACATT 120  
TGTAAGAATA TATTAAATAT ATGTNCACCC ATTATGTTTT TAGGTAACAG GNGGNNAAT 180  
GCANCNAAT TTTTTTCTC TTGAAAGGCA CTGTCATTTA ANCATAAACC TGGAGTACTC 240  
GAAATAGAAT TCAGGTTTAC ANGATGAAAG CGTGTGGAGA AGTGTGAGAT GGCAGTGGNA 300  
GCATGTGTGT TTCTAAAANG TAAANTCTC AAGGAAACCA NGANATGGCA TGCTTTTACC 360  
CATCTTNCCT TAGTGAAAAG NGTGCTTCAG GTTTGANATT GTTTTAAGAA AGNTAGCCGG 420

GNTN

424

SEQ ID NO:4429

LENGTH:122

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05264

SEQUENCE DESCRIPTION:

GATCTGCTCC CTCTCGCTCT CTCCTCCAC TACTTTTGG AACAAAGTGA TGGCAGAATG 60  
CGGTGGTGGT GGGGGTCTTT TGTACTGTTG GATTAATAAA ATGATTNAA ATTNCNNNTA 120  
AA 122

SEQ ID NO:4430

LENGTH:85

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05266

SEQUENCE DESCRIPTION:

GATCAGTATA ATTTTNNAAA GTTACTTTGT NAGAGGCACA AAAGGGTTTA AACTGNTTCA 60  
TAATAAATAT CTGTACTTCT TCAAA 85

SEQ ID NO:4431

LENGTH:187

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05267

SEQUENCE DESCRIPTION:

GATCACGTAG ACATGTAACC CAGCAGCAGT TTGCTTCTGT TGTCCACTGA TTAATCAGCC 60  
TATGTGCCTG ACACGGTCT TGCAGTACAA CTGNAAGCCA AAACAAGGTG GAAGATGTCC 120  
TGAATTAAGA TGTTTTACC ACATTGTATT ACAGAGACAG CCAATAAATC TACTATTTGA 180  
TTTCAAA 187

SEQ ID NO:4432

LENGTH:211

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05269

SEQUENCE DESCRIPTION:

GATCTTTTAT TTNTGAAACA CTCAAACACC TTACAAAGTG CTGAGTAGGT AATAGTGACC 60  
CAACTGTTTT GCTAAATGAT TATTTGTTTA AATCTGTACA GTTTTAAGTG TTCACTTATA 120  
CAAAGAGTGT ATATACTTTC AAATAATTNA AAATGCTTTA NATTATNNGG CTAGAAATTG 180  
CNGTTTTNAA TAAATGTGAA TNTNTNAAAA N 211

SEQ ID NO:4433

LENGTH:62

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05270

SEQUENCE DESCRIPTION:

GATCTGTTGT TAGGATTCTA GTTAACACTT TTNTTTTAA AACTAAGGA CAAATGAACA 60  
AA 62

SEQ ID NO:4434

LENGTH:98

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05271

SEQUENCE DESCRIPTION:

GATCCCAGGG GAGGGGTCTC TCTCCCATC CCAAGTCATC CAGCCCTTCT CCCTGCACTC 60  
ATGAAACCCC AATAAATATC CTCATTGACA ACCAGAAA 98

SEQ ID NO:4435

LENGTH:239

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05272

SEQUENCE DESCRIPTION:

GATCGTATCC CGCTGACACA GAAGGNTGCC GGGTGGGGGG AGGGCACCCA TGAAATTCAA 60  
AGAAAAACCT AAGTGTGGAT GTTCAGAATT TTGGAAAAAT GTCAGTGAAG TGATTGAAAG 120  
AGTGCCTGGC ATGCAAGGNT AAGAGGTTCT TTACATAACA TTCCTAAAT GCTTAATAAA 180  
CGTTTGTTC ACTTGTTTT GACATTGCCA ATGGGGTTTG AACCAGTGCT CTCTCTAA 239

SEQ ID NO:4436

LENGTH:102

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05273

SEQUENCE DESCRIPTION:

GATCTGCAAT GACTGGAAT TGCCGGTGCC TGGGGTGCCT TTCCCCCAGC CAGGGTCCAA 60  
AGAAGCTTGG CTGGGGCAGA AATAAACCAT ATTGGTCGGA AA 102

SEQ ID NO:4437

LENGTH:333

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05274

SEQUENCE DESCRIPTION:

GATCTTCTTT TGGGAGGATT TGATGTAAGT NACTGACAAG CCTCAGCAAA CCCAAAGATG 60  
TTAACAGTAT TTTAAGAAGT TGCTGCAGAT TCCTTTGGCC ACTGTATTG TTAATTNCTT 120  
GCAATTTGAA GGTACGAGTA GAGGTTTAA GAAAANTCAG TTTTGTNCT TAAAANTGCA 180

TTTAAGTTGT AAACGTCTTT TTAAGCCTTT GANGTGCCTC TGATTCTATG TAACTNGTTG 240  
CAGACTGGTG TTAATGAGTA TATGTNACAG TTAAAAANAA AAGTTGGTAT TTTATANGCA 300  
CAGTCAATNC TNATGGTAAC TTTTGGTNGT CTN 333

SEQ ID NO:4438

LENGTH:72

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05275

SEQUENCE DESCRIPTION:

GATCAATGTT TCAGCCCTAG ACTGCCCAAG GAGTATTATT AATTATTAAT AAATGAATTC 60  
TGTGCTTTTA AA 72

SEQ ID NO:4439

LENGTH:100

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05276

SEQUENCE DESCRIPTION:

GATCAGATTA TTTTACTACC AACAGTTATA GTTTGAAAGT CCAACTGTAT TAATTGACTG 60  
ATAATATGAT AATATAGAGA TTAAATTGTT TGTNTTCAAA 100

SEQ ID NO:4440

LENGTH:96

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05278

SEQUENCE DESCRIPTION:

GATCACAAAG AGCAACAAA TGTCAATATC TCTTATGAAT GGTGAAAAAA AGGAATTAAT 60  
CGATGCAAAT AAACTTTCA CAGTATTACT TTAAAA 96

SEQ ID NO:4441

LENGTH:116

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05279

SEQUENCE DESCRIPTION:

GATCTAGCAA GCCATGGCGA CAGGTAGCAT TTNTAAGATG NTGNACAGGA GCAGNATTAT 60  
CCCCAAAGAT ATTACAGGGT AGACACGTTT TAACTAAAT CAATCAAGNT AACTTN 116

SEQ ID NO:4442

LENGTH:411

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05280

## SEQUENCE DESCRIPTION:

GATCTGACAT ATATCACCTT CTGGGNTATT TACTCATTGT GCCAGGACCT GGCATTTTCA 60  
 TGTGCCTTTG ACCAAGTGTT CAGAATTGTC TTGNCTCTAA CCTGGAGAGC TTCTTAAGTG 120  
 ATGCCCCCTC ATGGAGCTTC TATGACAGTG AATAAACTAT TAATTGAAGG AAAATGTTAT 180  
 AATTAANGTA TCTATTTGCT GCATTGTATA TGGATTAANT GNTAAAAAAC AAGTAATCTA 240  
 CCCTCAGAGC CATGTATTG AGAATGCTTT CAATCATATT TNCCTATGNA CTTTTTTTTT 300  
 ATAAACTTAG TTTTANGCCT ATGTTGTAAA ANTGGGAAGG TTNGTAAACN TATGTTTGGN 360  
 AAAANTAGGG GAAATGTNGG CTAAANTTN TTTTNCANTT ATNTTNGTTT N 411

SEQ ID NO:4443

LENGTH:90

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05281

## SEQUENCE DESCRIPTION:

GATCTATCTG GGGGTCTAG TGTACCACAA GCTGAACCTG AAGATTGGA AAAATGTTTC 60  
 TAATTAAATA AAACAGAGCA AAAAGACAAA 90

SEQ ID NO:4444

LENGTH:342

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05282

## SEQUENCE DESCRIPTION:

GATCTACATT TAAGTGGAAG AATTAGCAGT ATTTGAAAGC TCAGTTTNAA TCATTGTCTT 60  
 AACTTCAGAT ACAAATAACT GAACAGAAAG TTTTAACCTT TAATATCTCA TGTNCTGTTT 120  
 NTTATTAGT ATTTTCCTNT ATGTTAATTC AATTATATAC TTCTGAATGG CACCTTACTT 180  
 TTTGGAAACA AATCTTCTGT TATTACAAA ATAATAATTT TTANAAAAACA TTTAAAAAAA 240  
 ATCCAAAGCT GCTCTCGATA ATAGTCAACA TTTGCATATA TATGGAATTT CTTACTTTNT 300  
 TTCTCCCAA CTCTATTAA TAAACTNATT TTAATGGTTA AA 342

SEQ ID NO:4445

LENGTH:61

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05283

## SEQUENCE DESCRIPTION:

GATCACAAA ATGTATTTTA TAAATGTTC TGTACAATAA AGTTACACCT CAAAGTGTA 60  
 A 61

SEQ ID NO:4446

LENGTH:301

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05284

## SEQUENCE DESCRIPTION:

GATCATTATC AGTAATTTCA TAGCAACTGT TCTAGNGTTT TGNGTTTTTA AAACAGAATT 60  
 AGGAATTTGA GATATCTGAT TATATTTTTC ATATGAATCA CAGCTGTTGA CAATGTCCCA 120  
 TATATTTAAG AAATTATATC ATACTGATAC TATTTGTAAC ATTTTGATTG GATTTAATCT 180  
 CCAGGGACAG AAATAATTCA TTGGTAAAGN GTAATAATGC GTTTTTTAAA AATGCTTTGA 240  
 GAGGTAATTA CTTGCATATG AGAGAAATAA AACATTTGGC ACATTGTTTA CAGGTGTGAA 300  
 A 301

SEQ ID NO:4447

LENGTH:153

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05285

## SEQUENCE DESCRIPTION:

GATCAGACCG AGAAGCAGGG TGAGAGATTC TAACGACTGG ATGCTGCTAG TAACACATTG 60  
 TTTGTATTGC TTTACCATT TTAAGTGTGA GATTTGAGAT GAACATACAT TTTGCTTTTT 120  
 TAATAAATGT TTAAGAAGG TCCACATAAG AAA 153

SEQ ID NO:4448

LENGTH:216

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05286

## SEQUENCE DESCRIPTION:

GATCACTACA GTGAAGTATT ACAGTTGTAC AGTTCCCAGT CTGGCCTTGG CTTGCTCGGA 60  
 TAAACCTTG TATGTATTTT GTATGGCATA GATTCTATAT TGTAATGATG TCCTATGCAA 120  
 AAAGAAAAAT TAACGAAATT GTAAATTTTA TTGTTTAAAC GTGTATGCAT GTTAGTGAC 180  
 GTTACATTT TGAAATAAAA TTTATGATTC ATTAATA 216

SEQ ID NO:4449

LENGTH:172

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05287

## SEQUENCE DESCRIPTION:

GATCTGGAAG CGTTTGTAC CGATTATCCA CAGCAAAACA AAAATAAGCT TTTATTTTAT 60  
 TAATAATTTT GTTCTCTTG TGCCAATCA AATCTTTTAG GAACAACTG CAAGAAAAGC 120  
 TAAGAATGTT TTAGAGTGAA CTAATAACAG ACATTGCTTA CTTGTTTTGA AA 172

SEQ ID NO:4450

LENGTH:289

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05288

## SEQUENCE DESCRIPTION:

GATCTCCCTG TGGCAGCAGG CATGGAGAGT CAGGGCTGCC TTCATGGCAG TAGGCTCTAA 60  
 GTGGGTGACT GGCCACAGGC CGAGAAAAGG GTACAGCCTC TAGGTGGGGT TCCCAAAGAC 120  
 GCCTTCAGGC TGGACTGAGC TGCTCTCCCA CAGGGTTTCT GTGCAGCTGG ATTTTCTCTG 180  
 TTGCATACAT GCCTGGCATC TGTCTCCCCT TGTTCTGAG TGGCCCCACA TGGGGCTCTG 240  
 AGCAGGCTGT ATCTGGATTC TGGCAATAAA AGTACTCTGG ATGCTGAAA 289

SEQ ID NO:4451

LENGTH:121

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05289

SEQUENCE DESCRIPTION:

GATCTCTTAA AAATACCACA GTTTGTATTT TTCCTTTAAG GAGTAAAGAT TTGCCTTTAA 60  
 ATAACCTGGT ATTTTCCTGG CTTTCGTTTA ATACAATAGA AAATAAAGTA TTACACCGAA 120  
 A 121

SEQ ID NO:4452

LENGTH:293

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05290

SEQUENCE DESCRIPTION:

GATCAATGTG ACGGCAGGGA AATGTATGTG TGTCTATTTT GTAAGTAA AGATGAATGT 60  
 CAGTTGTTAT TTATTGAAAT GATTTCACAG TGTGTGGTCA ACATTTCTCA TGTGAAGCT 120  
 TTAAGAACTA AAATGTTCTA AATATCCCTT GGACATTTTA TGTCTTCTT GTAAGGCATA 180  
 CTGCCCTGTT TAATGTAAAT TATGCAGTGT TTCCCTCTGT GTTAGAGCAG AGAGGTTTCG 240  
 ATATTTATTG ATGTTTTTAC AAAGAACAGG AAAATAAAAT ATTTAAAAAT AAA 293

SEQ ID NO:4453

LENGTH:336

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05291

SEQUENCE DESCRIPTION:

GATCTAGGTC CTTCTATCTC GTCCCTCTAC AGATGTATTT TCCACTTGCA TAATTCATGC 60  
 CAACACTGGT TTTCTTAGGT TTCTCCATTT TCACCTCTAG TGATGGCCCT ACTCATATCT 120  
 TCTCTAATTT GGTCCCTGATA CTTGTTTCTT TTCACGTTTT CCCATTTCCC TGTGGCTCAC 180  
 TGTCTTACAA TCACTGCTGT GGAATCATGA TACCACTTTT AGCTCTTTGC ATCTTCCTTC 240  
 AGTGATATTT TGTTTTTCAA GAGGAAGTAG ATTTTAACTG GACAACCTTG AGTACTGACA 300  
 TCATTGATAA ATAACTGGC TTGTGGTTTC AATAAA 336

SEQ ID NO:4454

LENGTH:252

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05292

## SEQUENCE DESCRIPTION:

GATCTGCTGC AACCATTATC TTNGTTCTTG AGTTCATCAT GCATTTAAAA TGAGATGCAA 60  
 GAGCATTAG CATACCATGT AAATATGGAC CTTTAAAAA TAAATACTA TTGGAAGTGC 120  
 TTTCAACTCA GCCACATCTT AGCTATTAGT TCTTTGTGTT GTCTTATCAA AGTTTAATGG 180  
 ATACAGTTCC ACAGTTGTTG ATGTGTTTGT GTGTATATTC GATTNNNNNA AAGATGGTAG 240  
 TAAGTCAATA AA 252

SEQ ID NO:4455

LENGTH:57

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05293

## SEQUENCE DESCRIPTION:

GATCATACCA CTCCACTCCA GCCTGGGCAA CACAGCGAGA CTCCATGCTC CCCCCAA 57

SEQ ID NO:4456

LENGTH:564

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05294

## SEQUENCE DESCRIPTION:

GATCAGGCTC TCCTCATGCT GTTTAGTGAT GGCACGTGCC AGGTGAACTN CTACGGGGAC 60  
 CACACCAAGC TGATTCTCAG TGGCTGGGAG CCCCTCCTTG TGACTTTTGT GGCCCGAAAT 120  
 CGTAGTGCTT GTACTTACCT CGCTTCCCAC CTTCGGCAGC TGGGCTGCTC TCCAGACCTG 180  
 CGGCAGCGAC TCCGCTATGC TCTGCGCCTG CTCCGGGACC GCAGCCCAGC CTAGGACCCA 240  
 AGCCCTGAGG CCTGAGGCCT GTGCCTGTNA GGCTCTGGCC CTTGCCTTTG TGGCCTTCCC 300  
 CNTTCCTTTG GTGCCTNACT GGGGGCTTTG GGCCGAATCC CCCAGGGAAT CAAGGGACCA 360  
 GCTTTACTNG AGTTTGGGGN CGGGNTTGTT TTCGNTGGNT TCCTACCCCA TNTCCAAGAT 420  
 AAGCCTTNAG CNTTAANTCC CANGNTAGGG GGCCTTATTT NATGGACCAA TTTTAAATTT 480  
 ATTNTAAGAA ANTTTNTTTA NTTGGGGATT TTAAGCCCAA AGGGGGGCC TCNTCCTNAG 540  
 GTNANAAAAAN AATTTTTTAA GAAA 564

SEQ ID NO:4457

LENGTH:112

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05295

## SEQUENCE DESCRIPTION:

GATCTTTATT TTTGATTAAT TTGTTCTGAT TTTTGGTTT GTTTTTTAAG GAACTGTAAT 60  
 GAACAAATGT CAGGATATCC AATGCCAAAT AAAGATGTTG TATTTATTTA AA 112

SEQ ID NO:4458

LENGTH:152

TYPE:nucleic acid



TOPOLOGY:linear

CLONE:HUMGS05296

SEQUENCE DESCRIPTION:

GATCACACCC NGGTGAACCC ANGGTGCTAA GANTGAAAAT AACCTGGTG AAATGTACAA 60  
 NTTAAAGACA AAGAACTACA TGTGAAGATA GAETTGCTTT CTATTTTNAATCAGTAGTA 120  
 GTACTGTTGC TGAATAATAC TAGGTTTTNN CN 152

SEQ ID NO:4459

LENGTH:323

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05297

SEQUENCE DESCRIPTION:

GATCTGGTGC TGCTTTCAGA TGTTTATCTT TTATTTTTTT CCCTTAAGCT TTAATCTTCG 60  
 TCATTGTCTT AAAGTCAACT GGTGTTTCTT GTTCATTGAC TTTGGTACGA TGGTGCTTTG 120  
 CAAGGATGTA TTTATGTTAT AATGGCCAAC ATTTGGTCAG CCCTTGCCA CTTATTCAC 180  
 TCCCTCCNTT TGTAATAA GTGCTTTAAT TATAAACTGT ATAAAAATAC CTTGTATAAA 240  
 CCCCTTTTTT GATTATTACA ATAAATAAGC TGAATTGTAA CAAATGAAAT TTGATTTTTG 300  
 TAATAAAACA GTGGAAGAAGT AAA 323

SEQ ID NO:4460

LENGTH:229

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05298

SEQUENCE DESCRIPTION:

GATCCTTTTT AGTTAATACT ATGACAGTAC TAAAAATATA TGAATAACAT TTCAGATACC 60  
 ATTATATTAA AATATTTGTG TATGTGTACA AAAGCGTTGA TAAATACTAA TCTTTAAAGT 120  
 TTGTGGAGTT CCTTTATTTG TAATATATGT GCTCTTAAAA GCAATGGGAT GTGAAATTAT 180  
 GAAAGTATTT TATTGTTTAT AGAAATAAAA AACACAGTTA CTTTGCAAA 229

SEQ ID NO:4461

LENGTH:135

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05300

SEQUENCE DESCRIPTION:

GATCTGGACC TAATGAATTC CTCAGAAAAT TCCCATGAGT CAGCTGATTT CAGTGCTGCT 60  
 GAACTAATTN CTGTGTCTAA ATTTCTTCCT ATTTCTGGAA TGGAAAAGGA GGNCATTCTG 120  
 AGCCCACTG NNNNN 135

SEQ ID NO:4462

LENGTH:102

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05301

SEQUENCE DESCRIPTION:

GATCTGGGTA AAGGACCATC TGGGGATTCT TTGTACTATT TTTCTTTCCG CAACTTTTCA 60  
AGTTTCAAAC TATTTGCAA TAAAGAGTTT TTGTTTGTTA AA 102

SEQ ID NO:4463

LENGTH:189

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05302

SEQUENCE DESCRIPTION:

GATCACATGG CTAAGGTGGT GTGTGCCAGG TTTCTCCACT GTAAAATTAG GAATTTTCCC 60  
TTTGAAATTA ACAAGAATCT TCCACTTTGA AGCTGTGTGA ATGTCTTATT CTAAAAATTT 120  
TGCTTACTGA TTTNNNNN CATCATCAAT GATTCTTGCT TATAACAGGT ATTAATGTTA 180  
TGCTTGAAA 189

SEQ ID NO:4464

LENGTH:364

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05303

SEQUENCE DESCRIPTION:

GATCATGTGA ATTTAAAGCT TTATACACAT TGTTGTTTTT GCTGGTCTCA TCTTTGGTAA 60  
TATGCTATAC CCCACTGCTG CCCGACACTG CCCTNTAGCT GCAGAGCTGG ATTAGCTGTT 120  
GACCATTTGA TGCTGTTGTC TGTCTGGCAG GGAAGTGAATG ACCTGATGTC AGATTTAGAT 180  
TCTTCCTGGG GATTACACAG CTATGAATGT ATTTGCTTCT AAAACCTCCC AAAGTGAATC 240  
TAATCTTAAA ACTACAAAGT GTAAGTATTC TGAAATTGGG AAACATTTAT NTNAAATGCA 300  
ATCAGGNNAG TGTTGCTTTT TACAGCATAA TNAATATANG TNTCAANNAN NGTGGANGGT 360  
NGTN 364

SEQ ID NO:4465

LENGTH:229

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05304

SEQUENCE DESCRIPTION:

GATCACTTGA TGTCAGGGAG TTTGAGACCA GCCTGGCCAA CATGGTGAAC CCCATCTCTA 60  
CTAAAAATAC GAAAATTAGC TGGGTGTTGT GGTAGGCACC TGTAATCTCA GTTACCTAGG 120  
AAACTGAGGC AGGAGAATCA CTTGAACCTG GGAGTTGGAG GTTGCAGTGA GCCAAGATTG 180  
TGCCACTGCA GTCCAGCCTG GGTGATGAAA CAAGACTCTT TGTCTCAA 229

SEQ ID NO:4466

LENGTH:496

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05305

## SEQUENCE DESCRIPTION:

GATCTCTAAG GAACTCCTGT TGCTAAATAT GAAGAGTATG GAACATTCAT ATAGTCTCTG 60  
 TGAAGCATGG GGGGAGGGAA GACATTTCTN TTNCTTATAG GCTTTATGCT CAAATGTCAT 120  
 AGTCTCCTTT CAAAGAATTG TGTTCGATTT TAAATGCACC CAGCTTAAGT AGAAGACATT 180  
 GAAGGATGCA TTAATTTTCA GGAACATTTT TGGATTATGA AAAGATTCCC AATTGAAAAA 240  
 ATTATTCAAC AAGTAAAAGC TAAGAAATTN CATTGAAATC ATAATGGCAG TTTAAGCATA 300  
 AATTTGATAA ANAATAGCTG TGTACTACTA AATTAATTAG GAAAATTCNA TTCCAANCCC 360  
 AAGNNGAAGG AGTCCANGGT GGAAATATCC GGTTCGGTTT TATTTGNNC TTAGGNTGAN 420  
 GTTTCCTTTT GGTNAACCGN TTGNNTTTT TATTTAANAT NGNTTAATTA TTTTNGGTT 480  
 AANGNTATGC CCCNTN 496

SEQ ID NO:4467

LENGTH:415

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05306

## SEQUENCE DESCRIPTION:

GATCTTGGGA GATATTAATA TCTGCTGGCC AGACCTAAAA AAACTGAAG GCCCAAGGAA 60  
 AGTGACTGGA CTCACTGGAA AGTNTCTAAC AAATACTTTG GATTCCAAAG TATTTCCAAT 120  
 ACCTTGAAGA TTCCTTTGAA AACATCAAAG CACAACTCA AATCTGCACA AGATTACAAA 180  
 AGCACAAATTT TGGTGTATT TTTAGANTNC AATACACAAA GCTATTGTTC ATTTCTNTCA 240  
 GCAAGCATTT TCCTGGGTAG TAGTAATAGC TTAGGAATCA AATGCCACTT TTNTTTTCC 300  
 TTTTTCAC TAGTTTGAAA TACCACAANT NACAGGTNAG TCAGTCCTCC CAGAGGNNA 360  
 NGGNCAGTCC TAGGGNGGNA TCAACAGGNC TNGCAAGNCA AGNCCCACAA NTTNN 415

SEQ ID NO:4468

LENGTH:209

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05307

## SEQUENCE DESCRIPTION:

GATCGCAAAT TGAAATATGG ATATTGTAC CAGGCTGCGT GTTTTCATT TTAAACACAC 60  
 AAGATTTAAT TGAAAGGACA TCAATAATCA TAATTGTGTA TTAAACAGGT GGTNTNTAT 120  
 TAGTTTTCTN GTGTTTCAGA CTTTATGCAG CCATATAAAC TGTCTCTAG GCATGCTGTG 180  
 ACATTTTAAT AAAAAGCAAA AGGAGCAAA 209

SEQ ID NO:4469

LENGTH:353

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05308

## SEQUENCE DESCRIPTION:

GATCGCACCT TTTATACCAG AGACCTGAGG CAGATGAAAT TNATTTCCAT CTAGGACTAG 60  
 AAAAATTGG GTCTCTTACC GCGAGACTGA GAGGCAGAAG TCAGCCCGAA TGCCTGTNAG 120

TTTCATGGAG GGGAAACGCA AAACCTGCAG TTCCTGAGTA CTTTCTACAG GCCCGGCCCA 180  
 GCCTAGGCCC GGGGTGGCCA CACCACAGCA AGCCGGCCCC CNCTCTTTTG GCCTTGTGGA 240  
 TAAGGGAGAG TTGACCGTTT TCATCCTGGC CTCCTTTTGC TGTTCGGATG TTTCCACGGG 300  
 TCTNACTTAT ACCAAAGGGA AAACCTCTCA TTAAAGNCCG TATTTCTTCT AAA 353

SEQ ID NO:4470

LENGTH:64

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05309

SEQUENCE DESCRIPTION:

GATCCTCTAA CACTGTACTA AAACATTTC AATAAATCAT TCTGACTGCG TTCATAAAAA 60  
 CAAA 64

SEQ ID NO:4471

LENGTH:169

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05310

SEQUENCE DESCRIPTION:

GATCTATTAC TGACCGTATG ATGAGGCCAA CTTTTTNCC TTGTGGTTAG CAAGACTGCA 60  
 AGAGATGGAA AAAAAGTAGT TTGAATGTTT TGTGTGTAAG GAGTATACCA TGAGATGAGA 120  
 TGACCACCAA TCATTTCCTT GGGGGGAGGG GGTGTCTGCA CCNTAGAAA 169

SEQ ID NO:4472

LENGTH:132

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05311

SEQUENCE DESCRIPTION:

GATCACTGA ACCCAGGAGT TTAAGTCCAG TCTGAGCAAG GCAGTGAGAC CCTGTCTCTA 60  
 AACAATAAAA ATTAAATAA GTATTATCGA GAGTTCCTGG AGGGGTGAAA TTAAAGACTT 120  
 TCAAAACTTA AA 132

SEQ ID NO:4473

LENGTH:328

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05312

SEQUENCE DESCRIPTION:

GATCACCAGG CTGCCAAGG GTGCTGTGCT CTACAAGACT TTTGTCCACG NGGNTCCTGC 60  
 CAAGCCTGAG GGCACCCGTC AAACCTGGTAG CTATGCTTNG ATGTCCTGTT GAGGCCATCG 120  
 GACAGAGACT GGAGCCCANG TGACAGGAGA TGGTGATACC AGAAGTCAAG GGTGGGGTG 180  
 GCGACACGGC CTCCCGAGGA AGAGGTCTGC TTGATGGTGA CTCTGCAGGA GACTCTGAAG 240  
 TGACTGCTGG GAAACCCCTT GGGAGACCTN ACCTGNGGCC AAAANTAAAG TNNGCCAGCN 300

TCATGAACCG CATNCTATTT AAGGGAAA

328

SEQ ID NO:4474

LENGTH:307

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05313

SEQUENCE DESCRIPTION:

GATCTGGACA TGCTGTNACA AGAAATAGTG ACCTTGGGGA ATATGTACAG AAAAGACCTT 60  
 TTTCTAAGAG TTGGGAGGGG GTGGGGGACT GTATAATGAA AAGAATTAGC TTACAAAAAA 120  
 GAAATTGATA TTCAAAGTAT TTAGGCCAAA GCCAGTCAAA ATGCTTTCAT GATATTTTGA 180  
 GATGTAAATT TTGTCTGATT TGTATTGTNC TTTTCATTG CCTTCTAAC TTTATATGTG 240  
 ACCTGAATTT TCCATAACTT GATGACTATA GATTGCACCT AGGCATTCCA ATAAAAGCCA 300  
 ACCCAAA 307

SEQ ID NO:4475

LENGTH:133

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05314

SEQUENCE DESCRIPTION:

GATCGTAAAA ACATGTCTTA TGCGGAACCTT TCATGTCAGA TGCCTGGAGT GTGAAGTGTT 60  
 CATTGGACAT TCCATTTTAC TGTTCTGAAGT ATGGACTTAC ATATCAAATT AAAAGGCTCT 120  
 TTTGTTCTGC AAA 133

SEQ ID NO:4476

LENGTH:130

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05315

SEQUENCE DESCRIPTION:

GATCAACTGT CCTTAACCAC AGCAGCATGA TACGCTGGNT TACCCAATCG CTTGTAAGGN 60  
 AAGNCAGAGA TGACGTTATC CTGACTGCTG AGATGAGCAG TTTACCCTAG GAGGNCCNAT 120  
 TNGGACTATN 130

SEQ ID NO:4477

LENGTH:105

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05316

SEQUENCE DESCRIPTION:

GATCAGCCAC ACAACTGTTT TGTACATACT TATTTTCTCA TGCACITTTT TGTATGCAA 60  
 TAAAGCTATA AATTTACTCA TTTCAATAAA CTGGAGTGGC AGAAA 105

SEQ ID NO:4478

LENGTH:159

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05318

SEQUENCE DESCRIPTION:

GATCTGGGAC AGANTTCACT CTCACCATCA GCAGTCTGCA ACCTGAAGAN TTNCAACTN 60  
ANTACTGTCA ACAGAGTTAC AGTGCCCGT GGACGCTCGG CCCAGGGACG AAGGTTGGAC 120  
GTCAAACGAA CTGTGGCTGC ACCNTCTNTT TTCATCTTN 159

SEQ ID NO:4479

LENGTH:170

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05319

SEQUENCE DESCRIPTION:

GATCTGAAAA GAAGGTGAAT ATTTTGCACT TTTGATACTC TTAGGAACAA ATAACTTATT 60  
TGGCAAATG TTTNTTTTT ATGTTTGGG TGTGTGTTTT GTTTTTGAC TTTTTTGTA 120  
TTGTGAACAG GCACTGAAGC TGATGTTATT TTAAGATTAC AGAATGGAAA 170

SEQ ID NO:4480

LENGTH:73

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05320

SEQUENCE DESCRIPTION:

GATCATGTAA AATTACAGTA CTCAACCCCT CTAGCAAAGT ATTTGGNTGA AAAATAAACT 60  
AAATGCCTTT AAA 73

SEQ ID NO:4481

LENGTH:130

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05321

SEQUENCE DESCRIPTION:

GATCCGCAGA GGGTGGTTGG GATACACCGG ATACCTCTGC TCTCATTGCT TGTTTCCAAA 60  
TGCTCTATGG ACATTGTGT GCTAAATCCT ATTAAATAAA AAAGACGGGT TAAAACCCAG 120  
ATGCTGTAAA 130

SEQ ID NO:4482

LENGTH:56

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05322

SEQUENCE DESCRIPTION:

GATCAAATTG AGAGACAATA AGTGTACATT GTTGAATAAA AAATTTTAAA GTTAAA 56

SEQ ID NO:4483

LENGTH:90

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05323

SEQUENCE DESCRIPTION:

GATCTTGAGA GTATGTTCTT ACTCATTTCT GTAATTGCAG TAGTGTAGTC ATCTGCATAT 60  
AGTTTAAATA AATGCATGTT AAAATTAA 90

SEQ ID NO:4484

LENGTH:58

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05325

SEQUENCE DESCRIPTION:

GATCACGCCA TTGACTCCA GCCTGGGGGA CAAGAGTGAA TCTGTGTCTC ACCAGAAA 58

SEQ ID NO:4485

LENGTH:115

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05326

SEQUENCE DESCRIPTION:

GATCTGGTGA CTGTNCTCTC CCTGTTTTCC TTTCTTTTG GGTGTTTGAG GAGCANNGCT 60  
TAGCTTGAGA CACACACAGA CACTGTGTAC TTCAGTNAAG GGCTTAATAN ACAGN 115

SEQ ID NO:4486

LENGTH:201

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05327

SEQUENCE DESCRIPTION:

GATCATTTCT ATGTGTGTGG GTAATCTGGT CAGTAAGATT GAGACTTAGT TAAGATTCCC 60  
CTTGAAATT CCTTAATGTT TATTAGCTTC TAACTAGTGT TGTAAGTCCG ATGCCAGAAT 120  
TTGGAGATTT GAGTTCTTCT TTTATGGCT TTTATTCCT GTGACTAATA AGCTTCCTAA 180  
TAAATCCTTG CCAGACTTAA A 201

SEQ ID NO:4487

LENGTH:274

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05328

SEQUENCE DESCRIPTION:

GATCTAGTTC GTGTATAACT GTTAACTCAT TTTACATTTT TTNCTTCGTT GAATGTTTAT 60

CAGATTATAA ATATAGAGGC ATTTCTNCAT CCTGTTAAT GTTTATTTTG TAATCATTGG 120  
 AGTATGTGAA AAATTTTNGT TTGTTTGCT TTGGTCTCTA AGTAAACATG TTCAGCAAAG 180  
 TATTTNTNTT TTNAAGAAAT AAATNGNGNT TTGTATGTCC TNCCTTTTAG GTTTGAGGCA 240  
 AAGAGGAGAT GGGAANCCAA AGGCAACANG GGNN 274

SEQ ID NO:4488

LENGTH:332

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05329

SEQUENCE DESCRIPTION:

GATCTNTGCC ATGCAGAGCA TCTTCCAGAA GACCAGGACT CTGGGAGGCG AGGAGAGCTG 60  
 AGCTGGGCCA CCTGGTCTCA GCCACCTGTT CTTGGCTCCC CAACAGACTC TGCACTGCAC 120  
 CATGGGAGGC TCCTGGGATG TTTGGAAGAA GAAACGGGCT TCTCCTTGAG GGGGTAGTGG 180  
 AGGGATTTT TCCCCAGCAG TGGCCTCTGA GAGTNNNTCA GTGCCTGGTG GGCAGGGCA 240  
 GGCCTCTTGG AGCACCTCT CCCTGGNTCA GGGCCTGGAT GCAGGTGCCA AGCTCTCCAT 300  
 GTGGTGCATG TTNGACCCAG CCACGTGGTG AN 332

SEQ ID NO:4489

LENGTH:155

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05331

SEQUENCE DESCRIPTION:

GATCTTAACT ATGAGTAATT CACTATCAAG AGCTAATTAT TTGAAAAAAT ATAAGATGTT 60  
 ATGGAGCAGA TAGCTCAAGC AGTTAAAAGA AATTNTGCAA CTNTAATTCT NTTCTTATT 120  
 TTAATACTAC TACTTAATAA ATAGTATTG CTAAG 155

SEQ ID NO:4490

LENGTH:115

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05332

SEQUENCE DESCRIPTION:

GATCAAATCA GAGATTGACA GCCTGTGGAG GGTGCTGAAC TATACAGAAT TAGACACAAC 60  
 TATGTCATTA TTTTGTGAC CTACTGNTCA GAATAAAAAC ACTTGAAATA TGAAA 115

SEQ ID NO:4491

LENGTH:197

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05333

SEQUENCE DESCRIPTION:

GATCCCTTCT GTTGGTGTC TGTGTAAAC ATTTCTTTCA ATAACTAAA GAAAAATTAT 60  
 TAAAGGAACA CATACCTTGT GTTAAATAGT CTAGACTAAA AGATTGAGAA GTTACTTTCC 120



ATTGCTATCT ATTGATAATT TAGACATTGA GTTCAAATTG CCTTCATTTT ATGATAAATA 180  
ATGATTTAAC TGACAAA 197

SEQ ID NO:4492

LENGTH:79

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05334

SEQUENCE DESCRIPTION:

GATCATTTTT ATTTTGTAAG TATTACCTAA CTTTACATAA ACTATATCAT AATAAACTAT 60  
TTTTGCATCA CCCTTTAAA 79

SEQ ID NO:4493

LENGTH:377

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05335

SEQUENCE DESCRIPTION:

GATCTCCAAG CTGAAACTTA CACGTTAAAA CTTTGCCTG TAAGAATTTG CACATGAATG 60  
TTAATGGAAA ACACAAAACCT TAAGATGGCC CAAAACNAAA GCCACAAACA GTTCATCATT 120  
TGGTGCTTAG TCTTTGTAAG GGCTCTCTGT GGTTGACTT ACTCCAGCTA CCGTTAGATG 180  
AGGGCAAATC ACCTTAGAAC ATGTTCAATT GATTCATAAC ANGGAAAATT GGGTCTATGA 240  
TTTTTNGCCA ATCTTAGCCT AAAAGAAATT GCTTTAGCTT CTGGTCAGCA CTGATTAAAA 300  
TGTGAATAGT GAAGTGGCTA TCCTAAACTG GTTTATCTCC ACCCACACTA TCATAGANTT 360  
CTTAGGTAAT ACAATTN 377

SEQ ID NO:4494

LENGTH:170

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05336

SEQUENCE DESCRIPTION:

GATCAACAC ACACACCTAT ACACATACAT ATTAANATGC AGAGGATTTT AAATAATTGC 60  
AAATGTCTTG TGGCTGTTTT ATTTCTACAA AATTCTGTAA GATGTATACC AGAAAACATA 120  
ATAAAGATAA GCTCAGTTCT TCATTGGGNA AAANTATTT TAAGNNNNNN 170

SEQ ID NO:4495

LENGTH:57

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05337

SEQUENCE DESCRIPTION:

GATCTGTAAT GTGTCAAAGC ATTTTCACT TTTCAAATAA AGATACCTAT AATGAAA 57

SEQ ID NO:4496

LENGTH:373

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05339

SEQUENCE DESCRIPTION:

```
GATCAGAATC TNCCAAC TTT AGAGGTGCAA TGGAAGACAC TACGCTACTT GGTGAGCCT 60
GGTGAAGAAT GTATTAATGA GACTNCTTTG CATAAACTG GGAAGAAAGA GAAGACAGT 120
GGAGATGGAA GATGGTTTN TATATATNTN GGAAC TTTAG TTCCTCTGTA AGACGAAAGA 180
GGAGAGCTAT GTTNNTNTC ACATTGTCTG ATATATATNG TGTACCTGTC AGGTGAGTTG 240
ATTTAGACAN CATAGCTGAC CTTTATGAC ANGGCAGTTT GANTAGGGNC TATTGTAATA 300
CCCTCACACA TTATAGGGGC ATCAGAGNAT GGCCATGGNA GGGACAGTCT TACAGGGGGC 360
TTTANGNGN CCN 373
```

SEQ ID NO:4497

LENGTH:368

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05340

SEQUENCE DESCRIPTION:

```
GATCTGAAGA AGTTGCTGTT CTGAAACAGA AGTTGGAGCG ATGTCATTCT GCTGAGCTTG 60
CACTTAACGT AATCAGGAAG TAGAGGAAAG GCTATGNAGT TGATGATTAC GTCTCAAAGA 120
AATCCAAACA TGAGGAGGAA GAATGGACTG ATGACGACCT GGTAGAATCT CTCTAACCAT 180
TTGAAGTTGA TTTCTCAATG CTAAC TAATC AAGAGAAGTA GGAAGCATAT CAAACGTTTA 240
ACTTTATTTA ANANGTATAA TGTGAAAACA TAAATATAT TANNCC TTN CTATTGTTTT 300
CTTCCCTTT CACAGTAACT TTATGTNAAA TAACCATCTT TCAAAGGGC TANAANNAN 360
ANANNTNN 368
```

SEQ ID NO:4498

LENGTH:150

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05341

SEQUENCE DESCRIPTION:

```
GATCACATCA CCTCTGCCC TCAGTTTCCC CATCTGTAAG ATGGGAGAAT AATACTTGCC 60
TACCTACCTC ACAGGGGTGT TGTGAGGATT CATTTGTAAT TTTTTTTTT TTTTAAANA 120
GNGTTTAAAN GNNTAAAAAN CAGTNAAATN 150
```

SEQ ID NO:4499

LENGTH:109

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05342

SEQUENCE DESCRIPTION:

```
GATCTCCATC ATTTCTTACA GGTTCCTC CCTCAAGCAA TTCGACATCT CAAGTGAAGA 60
CATGGCCCT GAAGGGCAAT AAAGCTGCTA GTTTATTAAT ACAGTCAAA 109
```

SEQ ID NO:4500

LENGTH:315

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05343

SEQUENCE DESCRIPTION:

GATCTACAGG NCAAGGGAG GGAGCAAGCC CTAATCGGAT GGGGCACGGA CTGTCCACCT 60  
TTNCTAATGT GTGTTGTCAG CCTGTGCTGT GGCATAGACA TGGATGNGNG GACCACTTTG 120  
GAGACTGGGG TGGCCTCAAG AGCACACAGA GAAGGGAAGA TGGGGCCATC ACAGGATGCC 180  
AGCCCCTGCC TGGNTTGGGG GCACTCAGCC ACGACCAGCC CCTTCCTGGG TATTATTCT 240  
CTATTATTG GGNNNNGNTG AAGAGGCATC CTGCCTGGNT GGGNCAGCCC CTTACGCCCC 300  
TTNTNCCCTN CCCGN 315

SEQ ID NO:4501

LENGTH:157

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05344

SEQUENCE DESCRIPTION:

GATCAGACTG TTGCTTTCGC ATGNTGTATG TAGTGTCTCA TGNCTGGAGT TTGCTTTGTT 60  
TTATAGTATC TGTACTCCTT GTATTTTCA AGAGCTATTT TGTAACAGA TGATGTATTT 120  
CTCCATTGAA AACACAATAA AAAAAANCA GCACAAA 157

SEQ ID NO:4502

LENGTH:397

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05345

SEQUENCE DESCRIPTION:

GATCTAGTCT TTAATTCAG TTGNTGTGA GGTCCATTCT GTTACTAGA CGGATGTAA 60  
TAAAACTAT GCGAGCCTGA NTGANTTCTC AGCCAAATTT AGTCTGTNT CTCATCTTGA 120  
TTGGNTTAAT TCCAAATTCT AAAATGATTG ANTNCACAAT AGCTCTAGGG GATGANGAAT 180  
TTGCCTTACT TTGCCAGTT CTAAGACTG TGAGTTGTCA AATCCCTAGA CTGTAAGCNC 240  
TTCAAGGAGC AAGAGGCGCA TTTNCTCCGT GTCATGTAAT TNNCTAAGG TGCTTGGCAG 300  
CACTCTGTAC CCTGTGGAGT ACTCAGTACC TNTGGTTGA NGTTGCTGAC AAGACCTGAA 360  
AAAAATCCCT TAAAAANNA ACCCTTTAAG GTGTGGN 397

SEQ ID NO:4503

LENGTH:84

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05346

SEQUENCE DESCRIPTION:

GATCAGACTT GTTAAGTATG CCGCAAGTAA GAGCTAATTC ATTCATTCCA TGTNTGCCAC 60

TAAATAAAGA GATTGAGCAA GAAA

84

SEQ ID NO:4504

LENGTH:316

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05347

SEQUENCE DESCRIPTION:

GATCTNAACC CCAGACATCA AGGATAACAT CGTTGCTCAG CTGAAGCAGC TGTACCGCAT 60  
CCTTNAACC CAGGAGAGCT GGCAGCCCAT GCAGCCCACC CCCAGCATGC AACTGCCCCC 120  
TGCCCTGCCT CCCAGTAAT TGTNAATGCN ATCTTCTTCC TTCTNTTTT TATAATATTG 180  
TACATATGGA TTTTNNAGN GNTTAGATTT AACCAGCTTT TAAATCTCTC TTTNNTCTAA 240  
CAGTGTTAGA AGTTTGTNAT TCTNCAAATA TGCCTAGATT TAAAGCTGNT TTGAATTTAT 300  
GGNAAAAAAA AANAAN 316

SEQ ID NO:4505

LENGTH:218

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05349

SEQUENCE DESCRIPTION:

GATCAAAGTG TTAGGGGAAA AAAATTCCAA AAGTAGTTAC AAGCTATATC AATGTCAAAG 60  
TAAATNCACT TCATCAAAGC TAAGAAGTCA CAGGAATTGT NTCAGGTTT TAAAAAAAT 120  
TTTNCCTGAA TTCAGGAAGT GTCTTCTGAA TAGCAGCTAG CCANNTAAAG CGGTGTGTGT 180  
GTACTGCAGC TGTAGGTGAA CTTAAAAATA ATAATAAA 218

SEQ ID NO:4506

LENGTH:297

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05350

SEQUENCE DESCRIPTION:

GATCAGCCAG TTACCTTCTC CATTGTNTTA GTTCTGTCAC CCATTTGTC AAGTGACCTC 60  
TCATCTTCTA TAAACTAATA CAGGAATTCT TTCCAAAGCA ATGTCTAAAA ACTCTTTTTT 120  
TTAAAGTAAC AGTTTGGTAT GTTTATTGTA GATAAATNAT TTTNAGGCC TTCATTTTAG 180  
CTAAGTTTAG AATTNATATT AGGCANCTAT GATTGAGTG GTTATNCATT GAGTAANTTT 240  
CCACTATAAA GAATTTNATT GANCANTTGT TAAAGNATNN TGGTAATGCA TGGNCAN 297

SEQ ID NO:4507

LENGTH:322

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05351

SEQUENCE DESCRIPTION:

GATCAGAGCA CTGAGAACT CCAGAGGCTT CTGGTTCACC GCCCTGATTC CACAGATGTG 60

GGTCAGAGGC AGAGATGGAA GTTGAATGG ACAAGCCTGC CCTCTCCTCA GCTCTCCATG 120  
 GCTCTGTCCT CAGGCTGTTT CTGCAATTG ACATGAGGCC TGGCCCAGG GAAACCAGTG 180  
 GGGCCTCATC TCCTCCCTGT GCTGCTCTGA GGTGGAGCCT TCTNAGGGTC AGTCCAGCTC 240  
 TGGAGNCCCT CTCCAGCTCG GTCACCAAAG CTGTCTGGTC CCAGGGCGGT GTGGAGTGAC 300  
 AGGCACGGCA GCCCAATNCN GN 322

SEQ ID NO:4508

LENGTH:137

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05352

SEQUENCE DESCRIPTION:

GATCGCGCCA TTGCACTCCA NCTTGGGTGA CAGAGTGAGN CTCTGTCTCA AAAATAATA 60  
 ATAATNAATT AATTAATTAA TTAATAATA AACAGTGGGT TAGTTATCTC AAAAGTGGGC 120  
 TTGTTATAAA ANCNNGN 137

SEQ ID NO:4509

LENGTH:285

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05353

SEQUENCE DESCRIPTION:

GATCATAAGA CTGTCATGTA AGAGGTGCTC TCCTGGCACC CAGAGAAAAG GAGCATCCTT 60  
 ACCTCAAAA GCACAGGGAC ACAAAGAGGA ATCTAAACAA ACAGGCCTCT NAGTTTCCCC 120  
 CAGTTTATTA CATTTAGCTT GTTCACACTT TGCCCTATGA CATTNCTACA TCACTGGNTG 180  
 CTCTTCATCA AACCTACTAT AANNNCATT CAAGTTCAAC TGTTCCTTG GGCCTTNNTT 240  
 NNCTTATGGA GGCCCTCGTG TCGTGTAATA CTTNTATTNG GTNAN 285

SEQ ID NO:4510

LENGTH:327

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05354

SEQUENCE DESCRIPTION:

GATCAGCAGA GTGGAGGCTG AGGATGTTGG GATTATTAC TGCATGCAAG CTCTACAAGT 60  
 CCCGGTCACC TTCGGCCAAG GGACACGACT GGAGATTAAG CGAACTGTGG CTGCACCATC 120  
 TGTNTTCATC TTGCCGCCAT CTGATGAGCA GTTGAAATCT GGAAGTGCCT CTNTTGTGTG 180  
 CCTGCTGAAT AACTTCTATC CCAGNGAGGC CAAAGTACAG TGGAAGGTGG ATAACGCCCT 240  
 CCAATCGGGT AACTCCCAGG AGAGTGTCAC AGAGCAGGAC AGCAAGGACA GCACCTACAG 300  
 CCTCAGCAGC ACCCTGACGC TGAGCNN 327

SEQ ID NO:4511

LENGTH:194

TYPE:nucleic acid

TOPOLOGY:linear

2153480

CLONE:HUMGS05355

SEQUENCE DESCRIPTION:

GATCCTCCAC TCCAGAGCAC CTGAGAAGGC CGGGACCAGA GGCCCTGTGT GATGTGTACT 60  
CCGCAGCTGT TTGGGGTGGG ACATTTCTGT ACTTCTCGAT TTGCTTATGG CTCAGCCATT 120  
ACCTGTGTCA GTCCATGATT CTGTTGTAAC AGTTTAAAGA GTAAATAAAT AAAGCTGCCT 180  
GATGTCCCAT CAAA 194

SEQ ID NO:4512

LENGTH:106

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05356

SEQUENCE DESCRIPTION:

GATCACTTTT CCCTGTCTAA ACTCCAGGNT ACAGTATCCA ATANATCCAA ACAGAACTCT 60  
GGTGTCAAAG TGTAANTAAT NGTGTAATAAT AGCCTTCCCA AGNTTN 106

SEQ ID NO:4513

LENGTH:89

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05357

SEQUENCE DESCRIPTION:

GATCTCACCA CTGTACTCCA GCCTGGNTGA CAGAGCGAGA CCCAGACTCA AAAAATAAAA 60  
ATAAAAACCC TGAATATCTT CCTTCTAAA 89

SEQ ID NO:4514

LENGTH:366

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05359

SEQUENCE DESCRIPTION:

GATCTCTATA CCTCAGCTTC TTCATCTGCA AAGTGAGATA ATTGTACTAT TCTACTTTCC 60  
TCATAGTGCN NTTATAACAG ATTATGATAA TATTACAAAG TACTTAATAC TTGGCATATA 120  
GTATATATAT NANTATTAG TATTTTGCAA TTTGGGGATA TGAAAATTA GAAATTGCNT 180  
GTTAGTTCAT GCTGCACTAC CATATTGTCC TTTGGGGCT CTTCAATGGG TGAAATTCCA 240  
TTTACAGTT TATCATGTGC ATCTGTATCA CAGGNGTATT TTGGCAAAAT GATTCTGTNC 300  
CAAAAAGGAG TACTATANNN NGNGGGTGCC AAATATATTG AGTCTNTTAT GGGGAAAANA 360  
AATTTN 366

SEQ ID NO:4515

LENGTH:313

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05360

SEQUENCE DESCRIPTION:

01407

GATCTCTGGT AAAAAGCAAC ATCTGAGAAA ATTNCTTGTT TTTAGGAACC TGTGTACATT 60  
 CATACTTAAT TCTNCCAATN ATGCTTTTCA GTTTTTTGGA TTAACACTCA AAAGTAACAA 120  
 GTCCTCAAAA TTAGGTTTGT CCTGTTGTTT TAAGTGGACC TTTGGCAAGA GATTCTAGT 180  
 GAAGCTTGAT TCTNAGTACT TTCCTCATGT ATTAAAAAGA GGCTGGAGGA GGGAACTGG 240  
 GACGTGGAGA GTGAGGAGTG ATAGCCTGAG GTTCTTGGTT TGCCAACCTG GGGAAACCCT 300  
 GTCTCTACTT AAA 313

SEQ ID NO:4516

LENGTH:73

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05361

SEQUENCE DESCRIPTION:

GATCACTAAA CTATCTCCCC TCTTGCTGAA GTTCTTTGTA GTAATAGCTC ATAAAAATTT 60  
 GTTTATTAAT AAA 73

SEQ ID NO:4517

LENGTH:247

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05362

SEQUENCE DESCRIPTION:

GATCTTTTAA AAAGAGATTA AACCGAAGTG ANTAAAAGA CCTTGAAATC CATGACGCAG 60  
 GGAGAATTGC GTCATTTAAA GCCTAGTTAA CGCATTTNCT AAACGCAGAC GAAAATGGAA 120  
 AGATTAATNN GGAGTGGTAG GNTGAAACAN TTTGGAGAAG NTAGAAGTTT GANGTGGAAA 180  
 ACTGGANGAC AGAAGTACGG GAAGGCGAAG AAAAGANTAG AGAAGATAGG GAAATTNGAA 240  
 GNTAAAN 247

SEQ ID NO:4518

LENGTH:95

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05363

SEQUENCE DESCRIPTION:

GATCGCAGAA CATACTGTAT TTNACTATA TCTTTTTTTT TAAATCTGAC AAACTTTTTT 60  
 NCTTTNATTT NAATTGACAT AATTGTACAT ATAAA 95

SEQ ID NO:4519

LENGTH:134

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05364

SEQUENCE DESCRIPTION:

GATCTGCTTT GGAAATTAAT TGCCTCTAAT ACATACCTAA GTAAACATAA CATTAAATACC 60  
 TAAGTAAACA TAACATTACT TGGAGGGTTG CANTNTCTAA GTGAACTGT ATTTGANACT 120

NTTNAGTNTA CTTN

134

SEQ ID NO:4520

LENGTH:269

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05365

SEQUENCE DESCRIPTION:

GATCTGGCAC TGAGCTTTT GTCAGTGAAC CTTCCCGATG CCAGCTGGGC TCTTGGACTC 60  
 CCCTCTTCCT CAAGGGTAGA TGAGAGGAAC GATNNNTAGA GGTGGCTGT GGGTCCTGGG 120  
 TACCACCTTC TGAGCCTCAG TTTCTCATC TGTAAGTGG GGAGAAAAGT CTGTTGCCT 180  
 CAGGAGTGTG AGGACTACAC TAGTGAAAGC NCCTGGCGGG CAGCCGGCGA TGCCCAATAA 240  
 ATGTGTGNTT TGCTGTTGT TAAGTGAAG 269

SEQ ID NO:4521

LENGTH:189

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05366

SEQUENCE DESCRIPTION:

GATCAGTTTG TAATTTTTT NCTCCTTGAA GGCACAAAAT AATTGGTTN AGGTATGTAA 60  
 AACACTAGAG GTCAACCTTA CATAGTATAT AGAACTNATG GGTACCCA GCTACCCAGT 120  
 AGCATAACTT TNCACAGTC GGGGATGAAT TAACATGGCT GAAATAAAAC TAAAAGTATG 180  
 GTTTTNAAG 189

SEQ ID NO:4522

LENGTH:79

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05367

SEQUENCE DESCRIPTION:

GATCACAGTA CACCATATGC ACTCTGGTAC CTTAATTTT TTTTATAAT AATAAAAGTG 60  
 AATATTGAAG CTTCTTAA 79

SEQ ID NO:4523

LENGTH:255

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05368

SEQUENCE DESCRIPTION:

GATCTGTTGA ATTTGGGAAG CCTCCAGTTT TAATAAAATT TTTTATTAT GGTGGAAACN 60  
 TGTCTGTAAA NCTTAGGACT ATAGAAATGC AAAGAATAAA GANCTGAGGG AGTTACACAC 120  
 ATTTGTAGTC AGAAATTAAG TTCAAAANAT AATTTAGGTC ATTTGCATTT TTTAGTATGC 180  
 AAAATAAATG GAAAANTTAA NGTGCAATAN ANNTATAATT NGGGAATGA ATGCAGTAAA 240  
 NTTGANAACA TTGAN 255



SEQ ID NO:4524

LENGTH:51

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05370

SEQUENCE DESCRIPTION:

GATCTGTCAG GGCCACTTAG TGATAATAAA TTCTTCCCAA CTGCAGACAA A 51

SEQ ID NO:4525

LENGTH:353

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05371

SEQUENCE DESCRIPTION:

GATCCGCATC GACTTGGCCG TGGGGGACGT GGTCAAGACC TGGCGTTTCA GCAACATGCG 60  
CCAGTGGAAT GTCAACTGGG ACATCCGGCA GGTGGCCATC GAGTTTGATG AACACATCAA 120  
TGTGGCCTTC AGCTGCGTGT NTGCCAGCTG CCGAATTGTA CACGAGTATA TCGGGGGCTA 180  
CATTTTCTCG TCGACGCGGG AGNGGTCCCG TGGGGAGGAG CTGGATGAAG ACCTCTTCN 240  
GCAGCTCACC GGGGGNCATG AGGNCTTCTG AGGGCTGTTT GATTGCCCTT GCCNTGCTNA 300  
ACAACCTGTN ACAGGCACCT CCAAGGCCAG AACCACAGGG GCTNACTNTC GAN 353

SEQ ID NO:4526

LENGTH:174

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05372

SEQUENCE DESCRIPTION:

GATCTGGAAT AATTATGGTA AAATAATAGT ATTTGCTAAG ACTAGATGAT TGGTGTACTG 60  
GATTTTCATCC GCTATTTTCT AAGTTTGTTA TGAACGCTTA AAATATATAT GTATGTAGTA 120  
AAATTAATGT AAATTTGTAC AAATAAAAAT AAATGGCATG TGATATATGG CAAA 174

SEQ ID NO:4527

LENGTH:201

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05373

SEQUENCE DESCRIPTION:

GATCATGTGT TTGGGGGCTT TTAGGGGACC CAGCTGCACT GGGGCACTGC CCGTGGCCTG 60  
GGTAGGACAT TTCCAGCAA GGGCTGGAGG AGTTGCCGTG CCTTCAGCCT GAATCGAATG 120  
TCGAACCAG CCAGCGGTGC TTCACCTCT TGGGGATAAC TTGCTTAGTT TTTAATAAA 180  
TGTTCTTGGT TGGTTTTCAA A 201

SEQ ID NO:4528

LENGTH:308

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05374

SEQUENCE DESCRIPTION:

```
GATCTATGAA GCCCACCAAC AAGGCCGAGG GGCTCTGGAG GCATTGCTAT GTGGGGGACC 60
CCAGGGGGCC TGCTCAGAGA AGGTGTCAGC CACAAGAGAA GAGCTCTAGT CCTGGACTCT 120
ACCCTCCTCT GAAAGAAGCT GGGGCTTGCT CTGACGGTCT CCACTCCCGT CTGCAGGCAG 180
CCAGGAGGGC AGGAAGCCCT TGCTCTGTGC TGCCATCCNG NNNGGNTCCT CCAGCCTCAG 240
GGCACTCGGG CCTGGGTGGG AGTCAACGNC TTCCCTCTG GACTCAAATA AAACCCAGTG 300
ACCTCAAA 308
```

SEQ ID NO:4529

LENGTH:194

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05375

SEQUENCE DESCRIPTION:

```
GATCTTCTGA GCTTGTTTCC CTGCTGGGTG GGACAGAGGN CAAAGGAGAA GGGAGGGTCT 60
AGAAGAGGCA GCCCTNCNTT GTCCTCTGGG GTAAATNAGC TTGACCTAGA GTAAATGGAG 120
AGACCAAAAG CCTCTNATTN TNAATTCCA TAAAATGTTA GAAGTATATA TATACATATA 180
TATATNCCTN TAAN 194
```

SEQ ID NO:4530

LENGTH:314

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05376

SEQUENCE DESCRIPTION:

```
GATCTTGATT GATAACTGCC ATGATATTTT GCTTTGATGT GTTCTACAT GTGGTTGCAC 60
ACGGTTCACT AAAAATAATG CTGCTATCGA GTATGCAAT ATTGAAGTAT GATGGTTTGA 120
CTGTATGGNA GTGTTGTAGC AGCCTCTTGT TTTTTCCTT ATTGCCTCTT TTTTAAAAA 180
ACTTATAAAG TCACTNTTNA TTTTNCCTCA GTCTTCAATG ACGAGAGCAA TATTAAGANG 240
ACATTGCTAT CTAATNNTNA ATCTTNTTAA ATGAAAAATT CCTATGTTCA GTAGCGTGGT 300
TGATGCTATT GTGN 314
```

SEQ ID NO:4531

LENGTH:182

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05377

SEQUENCE DESCRIPTION:

```
GATCGAGTCA GCATAAATTT CTAAGTCAGC CTCTAGTCGT GGTTCATCTC TTTCACCTGC 60
ATTTTATTTG GTGTTTGNT GAAGAAAGGA AAGAGGAAAG CAAATACGAA TTGTACTATT 120
TGTACCAAAT CTTTGGGATT CATTGGCAAA TAATTTCACT GTGGTGTATT ATTAATAGA 180
AA 182
```

SEQ ID NO:4532

LENGTH:314

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05378

SEQUENCE DESCRIPTION:

GATCATGAAA CTGGTTTCTG TTTTATGCAG TTGTCATTTG TAAAGNCTAA TAAAATATNC 60  
TCTATAATTN CTTCTAGATT AAAAAAATAT GACAATCTTG TAAGTAGCAG ACTATGGAGA 120  
AAAATGAGTT ACCTGGNGGG TCAGGTAAC T GCCAAACTN AAANGTNTGT TAGTTGAGGC 180  
AAAGTCCTAA GCAAGGTTGT GCTATCANGG CTCAGCATAC CTTCTGTTGGC CTTTGANTTA 240  
CCANCACTGG AANTGCCTGC CANCTAATCT GGGGTAGATT CTTTAAGGCA TTCCACTTAG 300  
CTTGCCAGTT GNGN 314

SEQ ID NO:4533

LENGTH:311

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05379

SEQUENCE DESCRIPTION:

GATCAACTAA TAGCTCTGCT AGTAATTGAT TTATTTNCT TCAATAAAGT TGCATAAACC 60  
AATGACTTAG CTGCCTGGAT TAATCAGTAT GGGAAACAAT CTTTGTAAA TGCAAAGCTG 120  
TTTTNGTAT ATACTGTTGG GATTTGCTTC ATTGTTTGAC ATCAAATGAT GATGTAAAGT 180  
TCGAAAGAGT GAATATTTTG CCATGTTTCAG TTAAAGTGCA CAGTCTGTTA CAGGTTGACA 240  
CATTGCTTGN CCTGATTTAT GCAGAAATTA TANGCTATTT GGATAGTGTA GCTTTAATGT 300  
GCTGCACATG N 311

SEQ ID NO:4534

LENGTH:330

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05381

SEQUENCE DESCRIPTION:

GATCGGAGGA CGACCCGAGT CCCAAGAGTG GGGTTTTGCT TTTTAAAAGG AGAGAGGAGG 60  
GGTGATGGCA GGGGAGTGGA GGGTGGCCGG GCAGGTCCTG CCGGCGCAGG GAGCCCTCTG 120  
CCCTTCACAC TCTCTCCAA AAGAGCCTCC ATCTGTAAGG AAGCAGGTCT CCGCGAGGGG 180  
TTTCTTTCCA TGTNTTTTCC TCCTGTNGTT TTAGAATTT TTNGAAAAAA ACNGNCCTCG 240  
TTTTAGATTT ATAGCATTGA CTTTACACA CATTACACA AGANAAAAAT CCTTNCAAAA 300  
TTCTTAAANT NNNCTGGTNC CNNCTTTNNN 330

SEQ ID NO:4535

LENGTH:204

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05382

## SEQUENCE DESCRIPTION:

GATCTCAGCT CCCGTTCCCC AAGCACACTC CTAGCTGCTC CAGTCTCAGC CTGGGCAGCT 60  
 TCCCCCTGCC TTTTGCACGT TTGCATCCCC AGCATTTCTT GAGTTATAAG GCCACAGGAG 120  
 TGGATAGCTG TTTTCACCTA AAGGAAAAGC CCACCCGAAT CTTGTAGAAA TATTCAAAC 180  
 ANTAAATCA TGAATATTTT TAAA 204

SEQ ID NO:4536

LENGTH:136

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05383

## SEQUENCE DESCRIPTION:

GATCACTGG AGACTCTTTT TTTGCTGGTT TCTAGATAAC TCAGGTAAAT CAGACCTTTA 60  
 CAGAGTACAG GGCTAGGTGA NAGANTTACT GANAAATCAC CTTGAAAATC CGANGGGCTG 120  
 ATATACCCCTT NNTGTN 136

SEQ ID NO:4537

LENGTH:87

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05384

## SEQUENCE DESCRIPTION:

GATCTATGCT GTGTTTGCTT ATTCTTTAGT TGAACACACT ATGAAGAATT CCAGGTGTAC 60  
 TAGTGAATGT AATTTATAGT TGCCAAA 87

SEQ ID NO:4538

LENGTH:305

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05387

## SEQUENCE DESCRIPTION:

GATCGACAAC GAGGCCCTCT TCAGCTGCGA GGTCAAGCAC CCAGCTCTGT CGATGCCCAT 60  
 GCAGGCAGAG GTCACGNTGG TTGCCCCAA AGGACCCAAA ATTGTNATGA CGNCCAGCAG 120  
 AGCCCGGGTA GGGGACACAG TGAGGATTCT GGTCCATGGG TTTCAGAACG AAGTCTTCCC 180  
 GGAGCCCATG TTCACGTGGA CGCGNGTTNT GAGCCCGGNN NNNGGACGGN AGCGCTGAGT 240  
 TCGACGGGAA GGANCTTGGT GCTGGAGCGG TTTCCCGNCG AGNTCAATTG GCTCCATGTA 300  
 TTNGN 305

SEQ ID NO:4539

LENGTH:106

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05388

## SEQUENCE DESCRIPTION:

GATCATAAAA TGAATTCTTT ATTGTATCTA CACACTCCAC ATTCTTTACT GTGTCCTACT 60

ACTGTATCTT GGCTCCANTG CTGTATTAAA CACCATCTTA AGCAAA

106

SEQ ID NO:4540

LENGTH:167

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05389

SEQUENCE DESCRIPTION:

GATCCTCCTT TGCATGCAAC TGTAGCTGCA TTTAATGAAT AGTTTGAACC CTTGTNAATN 60  
CATTTTTTNA AAAAGAAAGA AAAAAAAAAAC TTCGTGTATG NAACTCAAAG CATGNAACCT 120  
TAAGATGTTG CATTCTAAAC TNACANTAAA GACCTTCCC AANTAAA 167

SEQ ID NO:4541

LENGTH:111

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05390

SEQUENCE DESCRIPTION:

GATCCATACG TGGCCGCACC CACACAGCAC GTGCTGTGAC NGATGGCTGA ACGGAAAGTN 60  
TACACTGTTC CTGAATATTG AAATAAAACA ATAACTTTT AATGGTANAA A 111

SEQ ID NO:4542

LENGTH:216

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05391

SEQUENCE DESCRIPTION:

GATCAGTTCT GCAAGATGCC CATCAACAAC AAGATGGCCC AGTGGGGCAA CAAGCCTATA 60  
TGCTGAGCAG GAGGCAGACT TGCAGAGCTT GTTTTGTTT ATCCTGTCCG TAAGGGGTCA 120  
GCGCTCTTGC TTTGCTCTTT TCAATGAATA GCACTTATGT TACTGGTGTC CAGCTGAGTT 180  
TCTCTTGGGT ATAAAGGCTA AAAGGGAAAA AGGAAA 216

SEQ ID NO:4543

LENGTH:103

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05392

SEQUENCE DESCRIPTION:

GATCGAAAAT AGTTGGAAAA AAGAAGAAGA GTTGCATCTC TACTGAACAT GTACAGACTT 60  
TCTTCTTCTT ATTATTCCT AAACAATACA GTGTAAAACT AAA 103

SEQ ID NO:4544

LENGTH:194

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05393

## SEQUENCE DESCRIPTION:

GATCAGAACA NTNCAAAAAA TTCACACCCC CAAAAAAGNC AAGCTATTAT ATGGCAATTT 60  
 CGTGATAAAA TATTCATCCT ATTTGTCCTG CATTCTAAT TTTCCCGTAA CTAGACACAT 120  
 CAGTTTATA ATTAGGGNAA AAATACCTN TAAAAGTAAA GCGAGCANAG GTTTCNNTTG 180  
 CANTGTTTCA TCCN 194

SEQ ID NO:4545

LENGTH:108

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05394

## SEQUENCE DESCRIPTION:

GATCTGGTAG GTTGACAGCAG AGAAAATAAA TGTGACTTGN GAGNCCACTC AGAGAGGGTC 60  
 CAAGGGTGAT GGAGAAGGAA GCATGGCCTG GNAGCTTGA AGGNANGN 108

SEQ ID NO:4546

LENGTH:266

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05395

## SEQUENCE DESCRIPTION:

GATCTGCTCT TGCAATGGCC TCACCATCTG GNAGGAGCGA GGCCGGCCCA TCGTTGGCAA 60  
 GGGCCGAAAG GAGTCAGCGC ANCCCCTGCC CACCTTNAG CAGGACCTCA CCTTGGCTCT 120  
 GTTGCTGTCC TCCAGGGCGA GCACTTTCCA CTTCAGAGG GGGCCAGAGG GACTTTGCCT 180  
 GCCCAGTCTT TGGAGAGCTC AGTACAGGGC AGGAGCTGCT GTGGTGTTC CTTGGCAAAT 240  
 NAAAGTTTTA TTTTCGTTG GGNAAA 266

SEQ ID NO:4547

LENGTH:72

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05396

## SEQUENCE DESCRIPTION:

GATCTCCGTG TGTGCATGTN ACTGTGCTGG GTTGAATGT GAACAATAAA GAGGAATGTC 60  
 CAAGTGTTC AA 72

SEQ ID NO:4548

LENGTH:104

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05398

## SEQUENCE DESCRIPTION:

GATCATGGGG GTGGATTCT TATGAATGGT TTAGTACCAT CCACTTTGTA TTGTCCCCGT 60  
 GGTAATGAGT GAGTCTTAA GAAATCTGGT CATTGAAAAA TAAA 104

SEQ ID NO:4549

LENGTH:74

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05399

SEQUENCE DESCRIPTION:

GATCTTCACA TCITGGACCT TNGTCAGTTT TGCTATTCAT TATTAAACAC TAAAACTTTG 60  
GCGGTTNTTG CAAA 74

SEQ ID NO:4550

LENGTH:292

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05400

SEQUENCE DESCRIPTION:

GATCTGAAAT CACATCCAGC TCCTGATGTT TTCTTCTCCC TCTGACTGCA GAGGAAGTGT 60  
TCCTACCTGC AGGAAGGCAC CTGTCACACA GGGCGTTCAC TCAGACCATC TGTGCTCTGC 120  
CCTGAGTICA GTTGAGAAAA TCCTATTATC AAATTGGNT TTCCTGGCCC CAGAACTTCC 180  
CAAAGACCTG TAAAATGGAG GGATTACCA CCTCACATAT GTCCAGTTAA ACAGTTTGTG 240  
GACTTGTAAC CGTCGCAGCC CANTGGTACA ACAGTAGTTT AATCACGGGA AA 292

SEQ ID NO:4551

LENGTH:265

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05401

SEQUENCE DESCRIPTION:

GATCGGATGG GCAAGTCCCT GCCAGGGTCT CCAGATGGCA ATGGAAGCTC CTCCTTGCCC 60  
CACTGGGAGT AGCGGCTAAA GCTGGGGGAT AGAGGGGCTG CAGGGCCACT GGAAGGAACA 120  
TGGAGCTGTC ATCACTCAAC AAAAAACCGA GGCCCTCAAT CCACCTTCAG GGCCCGGCCC 180  
ATGGGCCCCT CACCGCTGGT TGGAAAGAGT GTTGGGTNGT TGGCTGGGGG TGTCAATAAA 240  
GCTGTGCTTG GGGGTCGCTN GGAAA 265

SEQ ID NO:4552

LENGTH:173

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05402

SEQUENCE DESCRIPTION:

GATCTATGCT CTTTCAAATG GAGACTGGGA TATTGTTGTT TTAAGACCAC TGTTTTCTG 60  
TTTCTCCCA AATNTTAGTC ACATATATNA TTACCCTTAA GTTGGTCACT ATCTATCTAT 120  
CTGTCAATAA TTCAGGATTA AAGTTTGAAG TGTAATTACA TTTGANTTTT AAA 173

SEQ ID NO:4553

LENGTH:270

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05404

SEQUENCE DESCRIPTION:

GATCGACCAG CAGGTGGTCT ATATCCATCC TTCCAGTGCC CTCTCAACA GACAGCCAGA 60  
 ATGGGTNGTG TACCATGAGC TNGTGCTCAC CACCAAGGAA TACATGCGTG AAGTTACCAC 120  
 CATCGACCCT CGGTGGCTTG TGGAGTTGCG CCCAGCCTTN TTNAAGGTCT CAGACCCANC 180  
 TAAGCTAAGN AANCAGAAGA AGCANCAGCG TCTTGGNACC GTTGTACAAC CGNTATGAGG 240  
 ANCCCAATGN CTGGGAGAAT ATCTCGGNGN 270

SEQ ID NO:4554

LENGTH:333

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05406

SEQUENCE DESCRIPTION:

GATCGGGTTG AGCCCAGGAG GTTGTGGCTG CAGTNAGCTG TGATGTGCCC TTATGCTATA 60  
 GCCTGGGCAA GAGCGTGAGA CCCTGTCTCA AAGAAGAAAA AAAGAGAAAA ATAACCTTTT 120  
 TGAACAAACA GNCAATTAG CTAGTAGTAT GGAGATGTAT ACCCTCTATT ACACACATAA 180  
 AACCCTAACA AAATTCATTG NGGTGTATTA TAGTTAGTTT TGTGAATAGA GAAATAAAGC 240  
 ACTGATGNTT AANNTTGGTT ACAGTGACTT TTAGAAGGGN TTNNTTGTG GTTCACATTN 300  
 GTCAGAANTT TTTTCCNNC NNGGCTGGTT CAN 333

SEQ ID NO:4555

LENGTH:250

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05407

SEQUENCE DESCRIPTION:

GATCTCCCCC TTCCCTTGNG GGGCACAGCT GGCCTGGGCC TCCAATCCTG CGGANTTTCC 60  
 TGGGTGTGGC TTTGACCTCA GAAGTGGCTC TGGTTGGCC TCAGGAGTGT GGCCTGGCCC 120  
 AGCCTGCTGC AGCCTCCTGT GNGGGGCCCT TNATGCCACT AATCCCCNGA CCCCCGGAT 180  
 NTTNCAAACT GNACAGACAC ACGNATTGTT AAGGCCGCTT ANGGCCTCCA GCGTGCACTC 240  
 TTNTTTANGN 250

SEQ ID NO:4556

LENGTH:211

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05408

SEQUENCE DESCRIPTION:

GATCAATGCA NCGACGTNGG GCTCATGGCC TACCTCGGCA CCATCACCAA AACGNGCAAC 60  
 ACCATGAACC ATTTTGTGAA CAANTTCAAT GTCCTCTACG ACCGACAAGG CATCGGCAGG 120  
 AGAATGCGCG NGCTCTNTTT CTGATGAGGG TACTTGAAGN GGCTGATGGA CAGGGGTCAN 180



NGCAACTATC CCAAAGTGGA GNGCACTACA N

211

SEQ ID NO:4557

LENGTH:308

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05409

SEQUENCE DESCRIPTION:

GATCTTTTT CCATTGGTTA AACATTTAAC TCCATGNCAG ACCTTGTTTT AACCCCTCTC 60  
ACATCATGTT CTTTCCTTTT TTGCGAGTTA TTTTGCATTA ACCAACTTTG TCAGTGACAG 120  
ATGCGTATCT GAGGGTGTCA CACACGACCN TCAGCAGGGA AGACTTCTGG GCCATGGAGG 180  
GCCGTCTAAT ACATGGACTT ATAAACTGAC TGCNTGGGCA ATGAAAAGGC CAAATTATTC 240  
TGAATTTTT TNGAATCACT GTAAAAAAC TGATTNTTN NTGTATAGAG ANCACTTAAA 300  
CGGTGGAN 308

SEQ ID NO:4558

LENGTH:175

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05410

SEQUENCE DESCRIPTION:

GATCCAGCTG GTCATCCCA GCCCAGGTGG GCCAATTATT CAATTTNAA GAATTTTGT 60  
GCAAGCCAGT TGTCAAACAC AGCCATTATA ATTATGTAAA TTTGCAANTT ATGTTAAAA 120  
CAAGGACAAT AAATATTCAA AATGCATCCC TAATTACTAC ATTTGACCAC GNAAA 175

SEQ ID NO:4559

LENGTH:178

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05411

SEQUENCE DESCRIPTION:

GATCTTNACA ACTGTTTAAT CAGTTTTATT TTTGTACAGT ATTAGTGACC TAAGTNATTT 60  
TGCTGTCCCG TTTTGTAAA TCAANTGAAA NTATAAAGA GGCTGTGAC AGTAGGTATT 120  
TTGTACATAT GTATATATGT TGTCCAAATA AAATTAATAA ANTGGTNAAA GGCTGAAA 178

SEQ ID NO:4560

LENGTH:77

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05412

SEQUENCE DESCRIPTION:

GATCTTCAGC ATCTTTTACT TTCACCAGCG TTTCTGGGTG AGCAAAAACA GGNAGGCAAA 60  
ATGCCGCAAA AAAGAAA 77

SEQ ID NO:4561

LENGTH:203

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05413

SEQUENCE DESCRIPTION:

GATCCCAGGA ATATTGTAAA TTTTCTAACT TTACTCTGCA TTTTGTATAT CTGGCCTCTA 60  
 TTGCCCTTGA AGGTGAAGAT GAAACTGTCT TTAGAAGATA TCTCTTTGAT TCTGTGATAG 120  
 AAGTCCCTCA CATCTTGTAT TAATTTTATG TATATATCAA CGGTGGTTGG TCTTTAAAAA 180  
 AATAAATCAA AAGAATANGT AAA 203

SEQ ID NO:4562

LENGTH:352

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05414

SEQUENCE DESCRIPTION:

GATCAACCCA CATTAGAGTG TCTAAGGACT CCTGAGAATT CCTGTTACAG TAAACAAAAC 60  
 TAACGTAATC TACCATTTC TACACTATTT GAGCATGGAA ATCATAGTCC CCACTCTGTG 120  
 AAAACTTAAC GCTTTTTGGA AGACATTTCT GTAGCATGTC AGTTTGGAGA AATGATGAGC 180  
 TACGCCTTGA TGAAAGAACC GTGTTGGTGC TGCTAAGTTT AGCCATTATG GTTGNGCCN 240  
 TTNTCTNTCT TAAGGCCTTA TTCTTTCAAC TAAAAAGNTG GGGGATTNAG GNGCCAAGGN 300  
 AGNTTGGGGG GGGGNTNNTG NAAATTAANT TTTNTTGAGG GGTNGGCNTA GN 352

SEQ ID NO:4563

LENGTH:210

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05415

SEQUENCE DESCRIPTION:

GATCCGCAAC CTGGACCCCA GTGAGAGGCG GTGGGCTGAC TGGGAAGNAG AGGCCCCCAA 60  
 CCTACTCAGG ATTTNCACGT GTGAACTAGG CTGCCTGTGG GGTGCCCCCTT AGGCTTGGAG 120  
 AGCCCCAGAT TGGAGGCAGA CAGACTGCAC CACCCCTTCC CCCCTGTCAT CTCAAGAATA 180  
 AAGCAAGCTG CCTTTGTACT TGGTTGNAAA 210

SEQ ID NO:4564

LENGTH:74

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05416

SEQUENCE DESCRIPTION:

GATCANATAG TTGCTGTTTT GTAAAATGTA ATGTATATNT GGTTTTAAGT AAAATAGGGC 60  
 ACCTGTTTCA CAAA 74

SEQ ID NO:4565

LENGTH:303

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05417

SEQUENCE DESCRIPTION:

GATCCAGAAA CTGAGAAGCT TATCCGAGAG AAAGATGAGG AGCTGCGGCG GATGCAGGAG 60  
ATGCTACACA AAATACAAAA ACAGATGAAG GAGAACTATT AACTGGCTTT CAGCCCTGGA 120  
TATTTAAATC TCCTCCTCTT CTCCTGTCC ATGCCGGCCC CTNCCAGCAC CAGCTCTGCT 180  
CAGGCCCCCTT NAGCTACTNC CACTTCGCCT TACATCCATG CTGACTGNCN AGAGACTNAN 240  
GNGGCANTAA AGTTTAATAA ATCTGTAGGT GGCNNANAGA AAAAGAAAAN AACAAAANAA 300  
AAA 303

SEQ ID NO:4566

LENGTH:109

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05418

SEQUENCE DESCRIPTION:

GATCGTGTTC TAACTTTTTC TTTTCCTGTT TTTATTTTGG TATTAAGTCG TTGCCTTTAT 60  
TTGTAAAGCT GTTATAAATA TATATTATAT AAATATATNA AAAAGGAAA 109

SEQ ID NO:4567

LENGTH:303

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05419

SEQUENCE DESCRIPTION:

GATCTGGAGG CAGCAGTGCT GGATGGAATT GTCTAGGCTG TGGCATGTTG GTTTTGTCTT 60  
TCTTTTCTCC TTTGATTATG TAAGAGCTAT TTCATTATAA CTTATTATGG TGATTATACA 120  
GGCAAGAAGA CAAAAGGAG AGAAAATGTA CCTCTTCTAC TGGAATAATG TTTATGATTA 180  
CAAGTGAGAT AAGGTATTTT NATCAATATG AAGGCAACCT TGGCTGATAA AACCTCTATA 240  
GTGAATACTC ACATCTTTNA CTTCACTCAC TATCAATAAT AAATATATTT NCTGACAANG 300  
AAA 303

SEQ ID NO:4568

LENGTH:230

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05420

SEQUENCE DESCRIPTION:

GATCTCTTTT GTAGAGGATT TCAATGTATT TCTTTATCAT TTGAGTGTGT GTGTGATGGA 60  
CGAATATGTG TGTGAGTTTG AGAAGCATAT CGTTCGTGTC CAGTTACTTT GCAAATTTGT 120  
GGACATTTGT GATTGGACAG AGGGGTTTGT GCTGTGGCCT AACACTTGCC AAGTGAGGTG 180  
TAGGTTATGC CTATATGCAA ATTAACTTC ACCTTTCTTG AATATTCAAA 230

SEQ ID NO:4569

LENGTH:355

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05421

SEQUENCE DESCRIPTION:

GATCCCCAAT TGA CTCAGAG TTTGAGGAGT TAGTATCACA GAATTAGATT TTTTAAAGC 60  
ATTTGTACGT TTCCATTCCC AAATATGTAG CTGTGGTTCT TGAAAACACA TCCTACATTG 120  
CATATGGGCA TAGCAGTTTT TGACCCAGGC AGAATAAGTT AATATTTAAT TAAATATTGC 180  
TTTGAAGATG GCGCTCTGGG CATGAGCATG GGGCTCCATG ACTTCCCTTC TATCCCATG 240  
AGCCCCTCCT NCATCCAGCG ACAAGCCATG GGCATGCATA CAATGCAGCA AGACCAACAC 300  
ANGNGCAATA TTGAATTGGN TCATTCTATC TAAAAATTAC ATGGGGNGGG ANG TN 355

SEQ ID NO:4570

LENGTH:353

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05422

SEQUENCE DESCRIPTION:

GATCAGAAAT AAACGACAAA TAGTGTGAGA TGTGTTGTGA ACAGGCATGG TGACCGTGGT 60  
CAGCGCCACT CTTGTTTCCT GAAATGTGCT TCTAAGACAG AAAATGTATT TNCTCATCAA 120  
GGGTGTCTGG AGACACAGAC CGTGACCTTG GCGCANGGTG TGCATCAGAG GCGTGTGCTG 180  
AGAAGGGTGG TGTTAAGCTG TGGAAAATGA CTCAAGAGCA ATAAATCAGT GCCAAAGCTT 240  
CCCTGCGCAT CTGAATAGNC ACAAGTGAAG CCCGTGTGCG CACAGTGCAG AGGCCNAGNC 300  
TGTATTCCA GGTAGNGTGG CTTTATTGA CTGTGAATCC ATTTACCTGT TAN 353

SEQ ID NO:4571

LENGTH:266

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05423

SEQUENCE DESCRIPTION:

GATCGGGTCT ATTTACCCA ATAGTCACTT GTGTGTCCCC CGAAATTGGG ATGGGTGAGC 60  
ACCCTTGCTG TGGTGTAAC TTCCTGTTAT TTAATCTCCC CCACGGTTTC ATTTTNTNT 120  
TCTGTTAATA CTTAGAACTT TCTAAGAAAC TCCATGAAAT GAGGAAATAC TGTTTCTAAT 180  
AATATGAGGA AAGANGTAA ANTGTTCAAT CCANGTGGCA AGTCTTATTG GACACATTTT 240  
ANATAAGNTC ATGCATACCT GATAAA 266

SEQ ID NO:4572

LENGTH:279

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05424

SEQUENCE DESCRIPTION:

GATCGCCCGC ATGAGGTGCT GCTGTGCTCG GACCTGGTCA AGGCATACCA GCGCTGCGTG 60  
AGCGCCGCCC ACAAGGGNTG AGGAGCAGAC ATCATTCCCT GCCCTGGCAG TGACTTGGAG 120

CCCTGAAGAA GGGCCAATCA TGGGACCACA GCCACTGTGC CCTGCCGTTT CCTGCTGGGC 180  
 CCCTGCATAT GCCCCTGAGC CTGGGGCTGC CACGTGTTTA GGAAACAAAG TATGCGCTAC 240  
 TGTCTGAAAA CAAATAAAGC AGATGCCTTT GTTTTCAAA 279

SEQ ID NO:4573

LENGTH:131

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05425

SEQUENCE DESCRIPTION:

GATCTAGGCC AGTGGCTGCT TGTCTTGTG GAGCTGTGTG TNTNCTNCTN TAAGCAGCTC 60  
 CTCCCCGGAG TCCCCCAGCA CAGTCCCAGG AGATGACAGG AAGGAAGCAC CAGGGCAAGN 120  
 CGGACGNTCA N 131

SEQ ID NO:4574

LENGTH:413

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05427

SEQUENCE DESCRIPTION:

GATCTCACCT TCCACCTCCT CCGGGAAGTC TTGGAATGG CCAGGGCCGA GCAGTTAGCA 60  
 CAGCAAGCTC ACAGCAACAG GAAACTCATG GAGATTATTG GGAAATAAAA CGGTGCGTTT 120  
 GGCCAAAAAG ANTCTGCATT TAGCACAAAA AAAATTATAA AAAATACAGT ATTCTGTACC 180  
 ATAGCGCTGC TCTTATGCCA TTNGTTTATT TNTATATAGC TTGAAACATN GAGGGAGAGA 240  
 GGGAGAGAGC CTATACCCCT TACTTAGCAT NCACAAAGTG TATTACGNT GCAGCAGCAN 300  
 CACANTGTTA TTCGTTTGG NCTTCGGTTT NGTTNCCGGG GNCAGGTGTT TTTATTAGTG 360  
 GNGTTTTTAA AAGNGGNTN GTNGGGACCC TGTGGAGNA NAANCGGTTT TGN 413

SEQ ID NO:4575

LENGTH:55

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05428

SEQUENCE DESCRIPTION:

GATCACGCCA CTGCACTCCA GCACCCTGGG CGACAGAGTG AGACCCTGTC TCAAA 55

SEQ ID NO:4576

LENGTH:102

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05429

SEQUENCE DESCRIPTION:

GATCTGGCGT TGCCAGGCAT TCTGTAAGGG AGGGCTTTTC CAGTTCCTGG AAATGGAAC 60  
 GGAAAATNTG GCTGGAAACA TTAATATGGC TGGAAATGGA AA 102

SEQ ID NO:4577

LENGTH:420

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05430

SEQUENCE DESCRIPTION:

GATCCAAGCT GCTTGAGGGG GTCAACCTTG GACCAAAGTT GCCTTAAGCC TGTGGTAAAA 60  
 GGGCTTCAGG GAAGGTAAGT GGGCCANCTG CTGGAAGCTG CCAGCTGCCC GGNTGGCAAT 120  
 GGTGTGAGTG TCTTGGCCCT GTCCCTGCCC TGGGGTCCAG CAGGTNATCC CTCCTTCTT 180  
 CTCTCTCCTT TGGCGTTTGT TCCTGTAGTC ACTGGGCTAA TCTCCCCCTA GCTTGAAGCT 240  
 GTACATAGGG CCTCCNAGTG CAAATGNTNC TGNCCATACC GTGCACCCTT AGAAGCCTGC 300  
 GTGTGCATAG AGCGCCCNNT ACTTNCCAGT TAANTTCCNA GTTCTTGTTN CNTGAGCTTG 360  
 GTATTTTGTC ATGTGNCAAA TTCTGACTTT TGAAGGTTGG GNAAGTGAAG GGGAATTNAN 420

SEQ ID NO:4578

LENGTH:307

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05431

SEQUENCE DESCRIPTION:

GATCTGGGAC GTCCACGAGT GAGGGGCTGG CCACCCAGCC CGACAGCCTT GCCTGACCAC 60  
 CCTCCAGCAG ATAGACGCCG GCACCCCTTC CTCTTCCTAG GGTGGAAGNG GCCCTGGGCC 120  
 GAGCCTGTAG ACCTATCGGN TCTCATCCCT TGGGNTAAGC CCCAGTCCAG GTCCAGGAGG 180  
 NTCCCTCCCT GCCCAGCGAG TCTTNCAGAA GGNGTTTAAA AGGGTTGCAG GTNCCNACCA 240  
 CTGACCCCTC CCGGNTGGCC TNCTTGCNCA GCTTANAANC TTAAAGTCCA GNACGCAGTA 300  
 ACCTNTN 307

SEQ ID NO:4579

LENGTH:239

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05432

SEQUENCE DESCRIPTION:

GATCCCTCTC CAAAGTGGTT GTCTTCTINT ACCTTGTC TCTCTTGTA AAAATGAAAC 60  
 TCAAAAATAA AATAATGTG TCAAAATTTG AAAAAAANG AAAACTGAAA AAGCTAACAT 120  
 GANTTGTGTG AAATTGCATA ATGCTGTANT GCTAATCTAC AATATGTAAT GCTATCTTGT 180  
 ATGTNGNATT TGTTAATGCA CCACACAAGT GCAANGTAAA GACTGATTCA CNTTGNNNN 239

SEQ ID NO:4580

LENGTH:51

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05433

SEQUENCE DESCRIPTION:

GATCTGACTG TACTAAATAT GAAAAATAAA GCAGCACATA CTTTCTCTAA A

51

SEQ ID NO:4581

LENGTH:201

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05434

SEQUENCE DESCRIPTION:

GATCCATATA ACTGTTGGGT GCATCAGTGC TTTTNAAGG GGCTGCTTAC TATAGGGTTA 60  
 ACTATGTATA TNCATTGTTA AGAGTAACT TGTGGTTTGG CTGTTTCCTG GATTNATAA 120  
 CATACATGTG CAGAAATGTA TTCAAATGAA AGGNAGCATA CCTTTATCAN GATGCTATTA 180  
 AANTTGANCA TCGNGTNTAA A 201

SEQ ID NO:4582

LENGTH:170

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05435

SEQUENCE DESCRIPTION:

GATCATACAG TGAGGCTACA GTGACTGAGG GGAGAATCCC CTCCTGTTCA CTCTCCCAAC 60  
 CCTGCTCCAG CCCCTCAGCT TCCAGACCC TCATGCANTT GGTGTAAAT NCTCCAGGA 120  
 GCTGTTTTAC TGTCTACTTT TCAGGATTAA AAAAAANNN AAACTTAAA 170

SEQ ID NO:4583

LENGTH:393

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05436

SEQUENCE DESCRIPTION:

GATCGGACTC TGCCCTGGA CCTGGGAACG ACTGGACTGT CACGGGGTTA CCTCCTAGCT 60  
 CTCCCAGTGA ACTCCTGCCA GGCACACACA GCCCTATAG CACTGAGCTC ACATGGGACT 120  
 GGGATATGGG GGCATCTCTT CCCCAGAGAG GCACTCAGTG AGCCTCCTGT GCCTGGNCCC 180  
 AGCCTGGGCC ATCTCTTAGG TGAGACAGTT GCCCGAACT AAGCCAGGCC TGGCTGGAGG 240  
 AGCAGCAGCT TGGGGAGAGG GATTTCCTG CAGACCTCAA GCCATCATGC GGTGGGTGCT 300  
 GCCATGACAG AGGCTGGACC NCTGGGCCAG CGGGGTTGCT CAACCACCTT TTGTGCAAGG 360  
 TGGCCTTTGT GCTTGCGCCT GCAGGCAGAN GTN 393

SEQ ID NO:4584

LENGTH:162

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05437

SEQUENCE DESCRIPTION:

GATCCTGCCC GAGGAGGAGG ACGAGGGTGC CGACTCCTAA CCCC GCCAGG CAGCCTCGTT 60  
 CTGCACAGGC ACTTTAGCCC GAGCCAGGNA CACCTGCGAG GGGGCAGGTG TGCTCCGCCG 120  
 CCCTGCTGAT AAGCTGGCTT CATTAACTG ACACCTTCTCA AA 162

SEQ ID NO:4585

LENGTH:122

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05438

SEQUENCE DESCRIPTION:

GATCTGTAGG GTCAGGAACA CAGCACCTAA CACAGTGCCT TATGGATAGT AGTTTTATAA 60  
TACAGATGTG TTGGAAGAAT AAATGAATGG GTCCTTTTCA AACAAATTCA CCAGAAGTTA 120  
AA 122

SEQ ID NO:4586

LENGTH:288

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05439

SEQUENCE DESCRIPTION:

GATCTGTAC CTCAGCGAG ACCTATTTCC TCCCCACCCC CAGAAACCTC TTGTGTTCTT 60  
GCCTAGGCC AGGTGTTCTT GGCAGCCAAA TCGAGTCTCT CATTTTCTCT TGTGGACCAG 120  
TTAGTTTTGC CCATAACGCA GTATTCTGAG TTGCAACTG TCTCTCTGAT GTGTGCCTTT 180  
TGTTCACAC AGTAACCCCT GCATTCTGCT CTGCTCTAAT ACACTACCTG GAGAAAGTCT 240  
TTTCCTTATT TTCAATAAAT GTCAGACATT ATTGNAAAGA AAAAANTN 288

SEQ ID NO:4587

LENGTH:188

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05440

SEQUENCE DESCRIPTION:

GATCCCTATG TGGCTAACAG AATTAATGNT TCCAAAAATG TTGNAAATTA TATAGTNCTC 60  
TTAATTCCCC ACCTCTAACT ATATTTTGG GTTATTTCTT TAGGAACAGA TGCCAGGAG 120  
TCATATTACT GAGAATCTAG AAATCTTTG CAAAGTTCTT GTTATNTTGN CAAATTGCTT 180  
CCCNNTNN 188

SEQ ID NO:4588

LENGTH:287

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05441

SEQUENCE DESCRIPTION:

GATCTGCCCG CCTCGGCCTC CCAAAGTGCT GGGATTACAG GCGTGAGCAC CAGTGCCCAG 60  
TCCTGCCACA TCTTTTTTGT TAGTTGCAGT AGCAATACAA CCTATCTAG AAAAGCTGGC 120  
CAAAAAAGAA AATACCATGA TAATAGGGTA CCTAATTTAT TGCTTTATTT AAGAAAAATG 180  
TAATATTTCA TTCGAATAAG TACTTTTGGG CTGGGATGNT ATTCATTTA GCTACTTGGC 240  
ATGCCACCCA TCTTAGGGAA TTATATGAGG GTTTATACTT TAAAGTN 287



SEQ ID NO:4589

LENGTH:289

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05442

SEQUENCE DESCRIPTION:

GATCAAAATT TCAAGTTGAC AAATTTGGAT TTGAAAAC TC ATTCACTTTT TCAATTTTTT 60  
 TAATGAGGCA TAACATGCAT ATGGTTAAGT GCACAAATCT TAAGTG TACA GTCAGTGAAT 120  
 TTTTGCATGT ATGTATGTAC CTGANGCAAG ATATAGAACT TATTTACTTG TAAATAACAG 180  
 CTATATTGAT ATGTCACATA CCAAANANTT TACCCTTTAA NTTATACAAT TCAGTGGTTT 240  
 TTNGTATATT TGCAAAATTG TGCAACCNTC CCNACCATCT AATTCTAGN 289

SEQ ID NO:4590

LENGTH:293

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05443

SEQUENCE DESCRIPTION:

GATCCTCAAA GAAAGATTG TTAGAGATAG ACAGGTTTAC AATTTGTGGA AACCGAATTG 60  
 ACTGAATCTG TGGCTTCATG CGCTGAAGAA GCTGGGTCCT GGGGCAACAA GTGCTGTGTT 120  
 GCCAGGACAA ATAGATGCTA AACATGGCAC TTAAATATTT ATTTAAAAAC TTAAATTATT 180  
 ATTGGCAAGC AAATCTTAGT ATCTTTCTTC CAGTAATATG GCCTGGCTGA GGGTCAGACC 240  
 ACAGGACAGG NGCGACCTCC GGCCTTGACT GTCTGGGAAG CTTGATGGAT TTN 293

SEQ ID NO:4591

LENGTH:62

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05444

SEQUENCE DESCRIPTION:

GATCCACTTA GAGCAATAAC CACTTTTTAA ATGTAAAATA AAAAGACAAA TGNAAGGCA 60  
 AA 62

SEQ ID NO:4592

LENGTH:64

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05445

SEQUENCE DESCRIPTION:

GATCTTCCCA CTGCACTCCA GCCTGGCCAA TAAGACCTGT CTCCAGCAAG ACCCGNGTCT 60  
 CAAA 64

SEQ ID NO:4593

LENGTH:323

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05446

SEQUENCE DESCRIPTION:

GATCTAGATT CATTAGGAAT GTNTTCTTGT CAGCCAGGCC AGGACCCGGG CTTGCCAAGA 60  
GCAGAGGCCC TCCCAGCAAC CAGGATACCA CCACTTTGGG GGCTTTGTGT ACAGAGGTCC 120  
GGGTCTGAGA CCTCATAGGC TGCAGAAATC TGGGGCAGCC ACCATCAAGA AGCCCTCTC 180  
AGGGGCCAGA ACTCCTTTGC CAGCGTGGAT TTCTCAAGTC GGGACTGCAT AATTAAAGCA 240  
GTTGCAGTTT TATTTTTTTT ACAGCTTTT TCCCAAAAAT GATTGTAGT TGTGTGTGCA 300  
GCACTTTCGG CCTGATATGT GTN 323

SEQ ID NO:4594

LENGTH:70

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05447

SEQUENCE DESCRIPTION:

GATCAAAAAG ATAAGTTTAC AAAGTTGAGA CCTCTCATAA AACAAATGAA TAAAAATTTC 60  
CTCTTGTA 70

SEQ ID NO:4595

LENGTH:183

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05448

SEQUENCE DESCRIPTION:

GATCACCTGT GCCTCCCTC CCCCTTTGTT TGCCCTGTG TGGTTGGTCA AGGAGGGATG 60  
TGAGGGNAAT AGGGACCCC CGACTTGCCC TCCTGCCCTCA GTCTTTCCC CACCCTGTCT 120  
CTTCCTTGTC CTCTCTGGA AAATGCCAAA ATACACGATG TGAATAAAAG TACAACGGCT 180  
AAA 183

SEQ ID NO:4596

LENGTH:70

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05451

SEQUENCE DESCRIPTION:

GATCTATAAT TATGCCAATA CCACACTGTC TTGATTACTG TAACTTTAGA ATAAATCTTG 60  
AAAGTAGAAA 70

SEQ ID NO:4597

LENGTH:202

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05452

## SEQUENCE DESCRIPTION:

GATCTGCCTG TCAGAGTCCA CGTGTCTGG TCACTGGTCT TTATAATTGT TGTGCAATAA 60  
 CTAAAGGCTA AGGACTAGAT GCACTATCGT GTAAAGAGAT TACACATGAC TGTACCATGT 120  
 TGCACCTAAT CAAATAGTAT GTGGGGNTTT AAAATCGCTT GCATTGTTTC AAAAAATAAA 180  
 TATCTCAATG TCAAATACTA AA 202

SEQ ID NO:4598

LENGTH:149

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05453

## SEQUENCE DESCRIPTION:

GATCCTGGNG CCTGGACCGG GCTGGANGAC AGCTGAGNAT GGGCCTAGCA GATGAAGCTT 60  
 GCCAGCAAGG CCAAAGCAAA CGGTTTCTNC TGTGGATAGT GGACAGAGAC CTTTGTAAAC 120  
 AATGGAATTA TTCATTTTNC TCTATCINN 149

SEQ ID NO:4599

LENGTH:311

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05454

## SEQUENCE DESCRIPTION:

GATCAAGCAA TGGAAAAATT TGCACCACCG TGTCCCATGA AATTGTTTCA ATGTTTAGTT 60  
 TAGATATTGC TAACTTGTGC TATTACCTT TTGACAAGCG TGAGTATTG TTTGTTTGG 120  
 GTTCTTTTT GATTTATAAC TATTTAGTAG TCCCAGCTA GCTACCAGTA CAGATTTAC 180  
 CCCATGGGTA GGATTCTATT GTTAAGCCAC ATAACAAAGC ACATAATTC TGACANCACT 240  
 GCAAATGGAA AATACGAACC AAAAAAAGT TACACCGATA AGTTCANCA ACTGTCCATT 300  
 TTTGGATATT N 311

SEQ ID NO:4600

LENGTH:221

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05455

## SEQUENCE DESCRIPTION:

GATCCTGCCT TTTCTTTTC CCCACAATT CACGCCAGNA GTTCGTTTAC ATCAGGTAAA 60  
 TCTTGAGAAA GCCTTGGTGC CTCCTCCCC ACCCCCCACT CAGTAACCAC GTGCGTGAC 120  
 CCCCAGTATC TTTCTCAGTA GTTAAGACGT TCTAGGCAAT ACCATAGACA CATCTGACTG 180  
 TGTCTCTNTC TTTGAGTGCA AGAACTCAA GTNATCTTAA A 221

SEQ ID NO:4601

LENGTH:176

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05456

## SEQUENCE DESCRIPTION:

GATCAGAGCA GCTACACTGA AGCAAAAACC CCAGCGCCCA ACGCTAAATA TATTGCAATG 60  
 GAGAAACCGT CCACAATGGG GTGTCTCTGT CCTTAGCAGA GCCTTGGGGC TGCCGTTTAA 120  
 GACCCTCCTG CTACTCCAC CCTTTAGCA TCTAGTAAAC CACGCGCTGT AACAAA 176

SEQ ID NO:4602

LENGTH:293

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05458

## SEQUENCE DESCRIPTION:

GATCTCTATC ACTTTGCCAC CTGTTTGATG TGCAGTGGAA ACTGGTTAAG CCAGTTGTTC 60  
 ATACTTCGTT TACAAATATA AAGATAGCTG TTTAGGATAT TTTGTTACAT ATTNGTAAAT 120  
 TTTNGAAATG CTAGTAATGT GTTTTCACCA GCAAGTATTT GTTGCAAACT TAATGTCATT 180  
 TTCCTAAGA TGGTTACAGC TATGTAACCT GGTATTATTN CTGGGNCGGG CTTNTTTAAA 240  
 ATACNAGNCC NGGCCAANAN AAANTAGGAN CAAAAACCTN GGGGGTTCTG AAA 293

SEQ ID NO:4603

LENGTH:184

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05459

## SEQUENCE DESCRIPTION:

GATCAGGGAT GGGGATGAGG TGAGGGGATT TGCTAGAAAG GGGTGCAAAG GAATTTAGCG 60  
 GGTGATGGAG CTGTTCTGTG TCTTGATTGT GGAGTTATTA CAAGACGGTT ATTACAGTTT 120  
 TGTNGTATTG AATTTTACTG TATGAAAATC ATACCGCAAT AAACCTCACT CACATACGCA 180  
 CAAA 184

SEQ ID NO:4604

LENGTH:372

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05460

## SEQUENCE DESCRIPTION:

GATCAAGGAA TCTTTCATGA AGGAAATTTA AATACAGAAT GAAACATTAA NGGTAAAAGT 60  
 GGAGTAATTA TTAAATTAT GTGTATAAAA GGAATCAAAT TTTGAGTAAA CATGATGTAT 120  
 TACATCATCT TCGGAAATAG ATATGATGGA TTCTAGTGAA GACCAAANTT ACTTCTGTTT 180  
 ACTTCTATC AGGAAGCATC TCCATTGTAA ATATGTATTT NCATGTTTAT TACAAAGACC 240  
 CAAATGANAA NTTTTNNGTC CATTTTNGC ATAGCCTAAT GGTAGACTNG GAATAANAGT 300  
 TCTGTATTN TGGGATTTC NGNGTATAAN NCTGGTTTCT AGNTGGGGCG TTAAGTCCCN 360  
 TTTGGGTAAA NN 372

SEQ ID NO:4605

LENGTH:279

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05461

SEQUENCE DESCRIPTION:

GATCATGTAG GACGCGGCAT CCTGCCCCTG GTAGAGAGGA CGAATGTNCC ACACCATGGT 60  
 GTCTACGAAA AANAATAGT TAGTCACCTT CTNACCTTCT CCTCTTCTC AAAGCCTTCT 120  
 GTCCCTGGTT TTTGCAAGTN CTGCATTTC GCGGAGAATC CGCGTTGCCT ACTGCTGCCA 180  
 CCTCCTGTNC ATTTAGAACT ATGCAAAGAC TCCGNTTCCG TTTTCCTGAG CTCCTNGGGC 240  
 CCCAGAGTCT CTGTTTGATT ATTTATTAT TTATTNAGN 279

SEQ ID NO:4606

LENGTH:324

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05462

SEQUENCE DESCRIPTION:

GATCGAATTT CACATTGTAG AGATGTATAG CTGTGATTAA GCTGCAATG TATGCTGGGA 60  
 AACGGCTTGA GTGGATGGCT AATATAAAG TTGTTGGCCA TAATGCCACA CCTCTCATCT 120  
 GCTTGAAATA TGGACCAGTA TTCTAAAGTA TCAGCTACTG GGGTCTCATT CACTACAAGA 180  
 TAANTTCAA CTTCACAGNA CTTTGACGCA GTTCACCACC AGGCGGGACT GTGTCTGCAA 240  
 ACTCNCTTGT CTTCACAGAC GNCTGATTAA NGCNANNCT CTGGNNTCTC AAAGATNTAT 300  
 TGGGGAGTGN NGGTTTTNTG GGNN 324

SEQ ID NO:4607

LENGTH:225

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05464

SEQUENCE DESCRIPTION:

GATCACAGAC CTAAGGCCCA GGCCACCTNT CCANACCTGG AATCTATGCA NAANTAATTT 60  
 CCCCTTAACC TGGGAGGCAG CGACACGTGT NACTTCTGTA AGAAACGTGT GTACGTAATG 120  
 GAACGGCTGA GCGCCGAGGG CCACTTNTTC CACCGGNAGT NTTCCGATG CAGCATCTGT 180  
 GCCACCACCT TCGCCTGGC CGTCTACACC TTTNANTGCN ATGAN 225

SEQ ID NO:4608

LENGTH:251

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05465

SEQUENCE DESCRIPTION:

GATCTAAATN CAGACTNNGG AGTTGGGAGG AGGNACCAA GTGAACCATC CTTCATTAT 60  
 TCAGTCATTC GTTCATCTGT CAAACACGTA TTTGGACATC AAGGTTGCAG AGATGAACAA 120  
 TGCATGGNTT TCATCTTTNA GGAGTTCAAA ACCTAGTGGA GAGANCACAT GGTACAATCG 180  
 TAACACATGA AGGTCAAGTA AGTNTGCAG TAAAGGTACT AATAACATGT TCCTTGGNNC 240  
 AGNAGGATGN N 251

SEQ ID NO:4609

LENGTH:239

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05466

SEQUENCE DESCRIPTION:

GATCCAAGTG TTGCCTGTCA GCAGAGATAG GAGTGAAGTT GATGATGATG GTTAGATGGC 60  
CTCACAAGGG ACTCTAGTGA TAGTAAAGGT TCCAGTGGCA AACACACAAG TGAAAAGTTT 120  
GAATATAGTT TCATAATGTT TGAGAGTGT AAAAATGCAT TTTTAAATTA ATACATTACT 180  
TTCTGTACTA TTTTAAATAA GTGTGTATCT AAATAACAC ATAANATGTT ATGAGTAAA 239

SEQ ID NO:4610

LENGTH:344

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05467

SEQUENCE DESCRIPTION:

GATCATCCTG GCTGGGAGAA GTGGGACCGA GCCACCCAGC TNCATATCC CCAAGCNGCG 60  
CTACAGCCGG GATGGGAGGC ACGTGGCCTC TCTTTTATCC GTCTATTTAT NTTGTAAGTG 120  
TATTCGTGTG GAGGAGGTTG TTGCTTTATT TTTTAAAGGC TCTGGAGTNT TGTGTATGGT 180  
TTCTTTTCAC ATCNGGGCNT CCCATGGGCA CTTCTAAGAA GAGAGGGGAT TTCTTTGAAA 240  
AGGAGAGAGG AATCCCCTAG AGCAGGGGAA GCANTGCCTG CCAGCTNTTG TGCACCTTNC 300  
GGGNGAANTT AAATATNCNN NAAATTTTCA AACCAGNGAA AANN 344

SEQ ID NO:4611

LENGTH:128

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05468

SEQUENCE DESCRIPTION:

GATCTCTCTC TCTCTCTCCC TTTCTCTCT CTCTGTTGGA TGCTTCTGTA TCTTTTCCA 60  
CAGCATAATG TCTGGTGTGA TGGGAGCTA TTTATTGAAA TNAAAGATTA TNTATTTGTG 120  
CCATGAAA 128

SEQ ID NO:4612

LENGTH:92

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05469

SEQUENCE DESCRIPTION:

GATCCATTTT TGGGATAGAA TTGTATTTT TAAGTCATTT TTTTCTTGG AAATGGATAT 60  
GTACAAATAA AATAAATGGA AGACAGGATA AA 92

SEQ ID NO:4613

LENGTH:130

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05470

SEQUENCE DESCRIPTION:

GATCCAACAC ATTCANGTCA GTAGAANCAA ACCAAAACAT GCAAGCTTCA GCCTGNTCGA 60  
GTTCTATAGT TGTACCTAA ATCGTATGTT GTATGATACA TANGGTTATG TATTAGCNCG 120  
TAGCCGNGGN 130

SEQ ID NO:4614

LENGTH:279

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05471

SEQUENCE DESCRIPTION:

GATCACAGCT NCCCTTGAAT CTCATTGCCT CAGAGAAGAC TAGAGGGCTC TTGGACTATC 60  
CCTAGGGGCTA CACAAGAATA GTTCAGCCTT CTGCCATGCC ACACAGCCTC AGCTTGAATC 120  
TGGTTCATTG CGTCCTCGTG TTCTTCTCTC ATCCTTGCCT TANACCAGGG ATTCTGATAC 180  
CGAAGAAGAG GGGCCAATGA AAACCATGGA GTCTGTTCTG GACTCCCAGG GCTGGGACAT 240  
TATGTAGGAG CCACTTCATA AACATTCTCT TTACTION 279

SEQ ID NO:4615

LENGTH:333

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05472

SEQUENCE DESCRIPTION:

GATCAGTCAT GTGTCCGTAA CCTCGTTCCA TGACATCAGG ATAGCTGTGT TTGCACACCA 60  
TGCTCCATGT NCATTGGAG CCAGGAGGGG TTCTNAGTGG AGCCTGGCTT AGGGAACAGG 120  
GAGCGATGGA AGAATGCCAA CATTAGCGTT GGTCTTCTCT TGTNAGGAAT NAAGGATGCT 180  
TGCACACATG CACCCCTCA CTCTCACACT TGCACACATA CACACACACA CACACGAANA 240  
TGGTTGGTTT GTCAAANCTC ACTGTAGTAC ATAAAGNTTG CACTCTGNGT NNNNATATCT 300  
AGCNGNATGG GGGGTACGNT TTGGGCNGGT GTN 333

SEQ ID NO:4616

LENGTH:335

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05474

SEQUENCE DESCRIPTION:

GATCTCTTCC CACCTACCCT ACCTACTCCT ACCCAANACC CCCCTTCCCC ATTAATGTGA 60  
GTAATGAATT AGCCTGACCA CAGGTGGTCA CTGTAGGCTA ATGGAAAATA CCCAAGGGNG 120  
GGCAAAGCCC CCCATCAGAT GCATGAAGGT TTGCNAATGT TGAAGCCAC TGCCCCACAC 180  
ACTGTGTCTT TATAGANTTN CCCTTTGCCN CACCCTCTTC CTGTNTCCAA CCTGGGACAC 240  
ANCTTNGCTC AAAGNGCTGG TGGNTTGTGG GGCATTAATC TACAACCANA GTCCTGAATG 300  
GAGGCAAAGA GGGCCCCACN GGNTTTGNGG GGNTN 335

SEQ ID NO:4617

LENGTH:131

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05475

SEQUENCE DESCRIPTION:

GATCCATTCA CATTGCAAAC TTATCCTACT GTATAGCCAT CCATTGTAAG AATACATTTT 60  
TCNATTATA TTGTGTACAT TACTCCAGTG AACATTCTNN ANTCCTCTT TTNGTATCCT 120  
GTGCAAGANT N 131

SEQ ID NO:4618

LENGTH:323

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05476

SEQUENCE DESCRIPTION:

GATCTCAGCT ACGTGGGAGG CTGAGGCAGG AGAATCTCTT GAACCTAGGA GGCAGAGGTT 60  
GCAGTGAGCC AAGATTGTNC CAGCCTGGGC GACAGGGTGA GGCTCTTGTC TCAAAAAAAAA 120  
AAGTCCACAT CTTTCATGANC CCTCAGACTC TGGAGTTGGG TGTCGGCTTT TTAGCCAGN 180  
TTTTGTGGGA ATTGCCTTTN NCCTATTAAA GANGGAANGT GGGTAATGGA GTCCCAGCCA 240  
CTCANGAGNC TGGNTATCCC CCGAGANTGG CTTGGGTTAC CAGCTATGGA CCCTTGAAG 300  
ATGANTCTAN ATCCTTCTCA CNN 323

SEQ ID NO:4619

LENGTH:346

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05477

SEQUENCE DESCRIPTION:

GATCACCTCT CTGTATCCCC CACCCACTAT CCCATTTNCC CTCCTCCTCA GCTAGGGCCA 60  
CGCGGCCCCA CATTGCACTT CTGGGGGGTG ACCGACTTCG TACACGGGTT TAAAGTTTAT 120  
TTTNATGGTT TAGTCATTGC AGAGTTCTTA TTTTGGGGGG AGGGAAGGG GGCTAGTCCC 180  
CTTCTTTTGG CCTCCGCCC CCGCAGGCTT CTGTGTGCTG CTAAGTGTAT TTATTGTNAT 240  
GCCTTGGTCA GGGCCCCCTCT ACCCACTTCT CCCAGTAAGT TGTGGCCCCA AGCCCNATC 300  
CNTGTGCTGT GTGGAGTGGN CAACCTGACC CCCGNAAGNG GGNNAN 346

SEQ ID NO:4620

LENGTH:343

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05478

SEQUENCE DESCRIPTION:

GATCTTTTAA AGGATAGACG TGGTCTCATG CTTCTTTTGT NCGACTCCGT TTAAAGGAG 60  
CATTGTAACC ACTATCCTCA TCCCTACAAA AATCCAGTGG ATGCACTTCC AAATTACTTC 120



TGTCATTTTG TATGTGTTGT GTTTAGGGNT GCGTAATTTT CACTGGATGN TGAGATACAT 180  
 GGTGATACTA TGTCAGTTTA TTCTCTGTGA ATATGTCTGT ACATAGNCAG GAAGCTCTAC 240  
 TTATTTGTNC ATAGGCTGTC TGANGTATGT ACTTCTGTCA CATGGNCTTC ATTCTGATAA 300  
 AGGGTGTTTC TCCCTTGNTT CACTGTCCAT ACCTTTGTGN NGN 343

SEQ ID NO:4621

LENGTH:50

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05479

SEQUENCE DESCRIPTION:

GATCCTTCTG TGCTTGCTTG CATCTTTAAT AAAGACATGT TCCCGGCAAA 50

SEQ ID NO:4622

LENGTH:170

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05480

SEQUENCE DESCRIPTION:

GATCCAGCTA GGCTGGGACA CTCCTAAAT CAGCTGCGTG TTGTTAGCAT CAGGCAGAAT 60  
 GAATGGCAGA GAGTGATTCT GTCTTCATAG AGGGTGGGGT ACTTCTCCAT AAGGCATCTC 120  
 AGTCAAAATCC CCATCACTGT CATAAATNCA GNGGNAATNG NCTGNACAAA 170

SEQ ID NO:4623

LENGTH:290

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05481

SEQUENCE DESCRIPTION:

GATCCTCTCT GTGTAAATCC TGCCCGGTGC TGTNAAGGCT GGACGGTGGA GGACCTGCTG 60  
 GGGTCTCCTG GNACCCGCCT GTTGCTTCTN CCCTCCCCTG TGGAAGGTC TATATNACGG 120  
 GCTGCCTGAG GCCCCAGAAC TCGTCTGTAA ACCACCTTTT CCAGCCAGAG TTCCCAAAGC 180  
 TGGAAACGCTA GCTGCCTGCT CTTCCTTAAG NTGGCCTCCC CCNGACCCGT CANGGTCTCTC 240  
 AGTTGCCAGG GCTGGGGCCA NCCACTGTNA CACTGNGGNN TGCANGANAN 290

SEQ ID NO:4624

LENGTH:125

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05482

SEQUENCE DESCRIPTION:

GATCCAGCTT CAGCTGCACA CCTCTGTCCC CTGGATGGG GAACTAAGGG AAAACGTCTG 60  
 TTGTATCACT GAAGTTTTTT GTTTGTTTT TATACCGTGT CTGANTAAAA ATNCCCACNG 120  
 TTAAT 125

SEQ ID NO:4625

LENGTH:252

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05483

SEQUENCE DESCRIPTION:

GATCCTGACC CCAGCCAACA GCTGAGCTGC CGGGCCTCCT CGAGGCCCTA AGCCAGCCCC 60  
 AGAGGTCCCA TCTNAAGCTG GAGTACCCTG GGGTCAGCAG CAAGAGAAAG AAGNGGAGAT 120  
 TTTNTGTTN TTTTCCCCT CAGCCCTGCC ACCGTGGGGA GTCTGGTTT TNTCTTCATC 180  
 CTGTCTCTCT CCTCCTTACT CTTGGATAAA TAAACAGCCT GTGAGCACAC AGGCAAGCCC 240  
 GGCCCAAGTA AA 252

SEQ ID NO:4626

LENGTH:334

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05484

SEQUENCE DESCRIPTION:

GATCGTNACA AATCNCCT CCTCACCAGC TAGTCTGGGG TTCTCTCTCC CTGCCCCAGG 60  
 CCAGAACTGC CTTCTTCATT TCCACCCAGC CTCCCAGCCT CTTAGCTGAA AGCACAAATG 120  
 GTGAAATCAG TAGTCTCGNT CCATCTNNA TAGACTAAAC CTAAATGCCT CTAGGACGGA 180  
 CTGTTGCTAT CCAAGNGTTT GGTGTTACCT TCTCCTGGGA GGTCTGCTG CAAACTCAAG 240  
 TTCCNCAGGA TGGTCAAGNT GTCANGANAT ACAAGTTTNC ATCAATTGTA ATTATTACCT 300  
 GGTCTTTNCA ANTTGCAAN GGNGTTTGG GNTN 334

SEQ ID NO:4627

LENGTH:192

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05485

SEQUENCE DESCRIPTION:

GATCTTCAT CAGGGCCGGA GTAAATCCCT AAGTGNTCA ACTGCCCTCT CCCTGGCAGC 60  
 CATCTTGTC CCTCTATTC TCTAGGGAGC ACTGTGCCCA CTCTTCTGG GTTTTCCANG 120  
 GGANTGGGCT TNCAAGGTNG GNGTNTCTGT AAAATCAACA GGTAATAAAA ACTGTGTATG 180  
 AGNCCNGGCA AA 192

SEQ ID NO:4628

LENGTH:315

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05486

SEQUENCE DESCRIPTION:

GATCTACAAT NAGATATCAC TTAACACTCA CTGGAATAGA TATATAATCA AAGTGATAAT 60  
 ATCAAGTGT GGNGAGGATG CAGAGAAATT GGNACCCTCA TGCAGTGTG GTGGATACCC 120  
 ACGTGATATN AAAACAAATG TCTACACAAA AACTGTGCA CAGATGTTCT TTGCAGCATT 180

ATTATAATA GCCAAAATT GANACAGCCC TANTTTCTAT CAACTNACAG GTGAATAATC 240  
ANAACGTGGC ATATCCATNC ATGGNGTATT ATTCAGCATT ANANNATGGG ATGAAGTACT 300  
GGTATGCACC ACTCN 315

SEQ ID NO:4629

LENGTH:51

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05488

SEQUENCE DESCRIPTION:

GATCTGAAAT NATGGTTCAA AAAATACATT CATAATAAAA GTCTTAACAA A 51

SEQ ID NO:4630

LENGTH:337

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05490

SEQUENCE DESCRIPTION:

GATCAATGCC CNTNTNTCAG TCTCATCTGT ACTCACGGCA GCCCTGTGGA GTACGGTGTA 60  
CTGGCCCAGC TTACAGATGC AGAAAGCGAG ACGTTCTGCC ATNAGATAAA GTCACGTGGC 120  
TCTTTAGTAN CACGGACAAG GCTCCTCGCC AAGGAACTCG TGGCAGAAGA GGGCAGCAGT 180  
TGGCAGTAGC TGCCGATGTC TGTCCCCAGC TNCACCATTC CTCCTGTGG CTGTGCCATG 240  
CTCGTGGTTT CAGTNTCCGT GTGTNCATGT GNCTNCCCTT NAAGAGCTCG CANCTGGTGT 300  
GCTTNGGGGG TCCCAGGGCT GTGTAGNGTN TTCTNCN 337

SEQ ID NO:4631

LENGTH:90

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05491

SEQUENCE DESCRIPTION:

GATCTGTCTA TTTCGTTTAT CCATAGTTGC CTNACTCCCC GTCGTGTAGA TAACTACGAT 60  
ACGGGAGGGC TTACCATTC TTCCCTGAAA 90

SEQ ID NO:4632

LENGTH:97

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05492

SEQUENCE DESCRIPTION:

GATCAAAGGC TCTTCTCTCT TTTGTTTGAG AGTTGGTTGT TTTAAAGCTT AATGTATGTT 60  
TCTATTNAA AATAAATTTT TCTGGCTGTG GCAGAAA 97

SEQ ID NO:4633

LENGTH:320

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05493

SEQUENCE DESCRIPTION:

GATCATCGTA TGCAACAGCT GGGTAATAAG ACTGGCATAG CTCAAACTAT CCTGCCAAAC 60  
GCTCTCATCT GATTTTCTCC CCCTTCTCCC CCAACCTCCA ATCACCCTGA GTCACCTGTA 120  
AATTCATTG TCATTCAAAG CGGAATAACA AGTTGTCCCT AGCAAAACCG CTGAGCGCTT 180  
TATAATTTG TGGTGTATTT TTGTCAGTAG GTAGCAGAGG CGGAAGTATT TTTTGGTGTA 240  
ATTCTTGAAA TTTTCTGACA GGAACCCGGN TAAAGATAGA TGTGTCTGAG GNTAAAAAAN 300  
GTTNGGNNNG NNNTGNTTTN 320

SEQ ID NO:4634

LENGTH:146

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05494

SEQUENCE DESCRIPTION:

GATCTATGAA ATAGGTAACA TTTGAGTAGG TGTCATTTAA ANATAGTTGG TGAATGTCAC 60  
NTATGCCCTTC TATGTTGTTT GCTCTGTAGA CATGAAAATA AACAAATATCT CTCGATGATA 120  
ATTTGTATTA AGTAATCTAT AAGAAA 146

SEQ ID NO:4635

LENGTH:177

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05495

SEQUENCE DESCRIPTION:

GATCTATCCA GCTGCTTCCT TGTAGCCAAG AATGTGTTCA ATGAATTGTG ATTCACTGAT 60  
TTTATTGATT TTGTTTTAAA ACAGGGAGAC TGGTATTTTT GAAGCTGCTA TCATTTTCTA 120  
TTTCTNTATT AATNNCTTG TAATCATCTT ATTAAAGTTT TCTTATTTAG TGGGAAA 177

SEQ ID NO:4636

LENGTH:103

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05496

SEQUENCE DESCRIPTION:

GATCCTCTCC TTGTATGTAA TACCTTTTTT TCCCCTTTCT AGCAAGTACT TTCAAAAGAA 60  
CTCTGTACAT TTAAACATAA AAAATAAATT ATGTTGAGCC AAA 103

SEQ ID NO:4637

LENGTH:145

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05497

## SEQUENCE DESCRIPTION:

GATCCATTG TAACTACTCT TAATATATGG TACATAGTTT AAAAAATTTN ATTGAGCTTA 60  
 AAGTGTATCT AGTTTTGTGT CCTAATTATC CTGCTTAACC TTCTATTGTA AGGNTTTNCC 120  
 ACGTCAATAA ATATTATAAT GTAAA 145

SEQ ID NO:4638

LENGTH:279

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05498

## SEQUENCE DESCRIPTION:

GATCANCAAA CTCAACACCA TCTTGCAGGA GCAACGGGNT GGCCTTTAAC ATTGCTGAGG 60  
 CTTTCAAAGA TGTGTCAGAA CCCATTGTAT TTCTGCAACA GATGCAGGAG TTTAGAGAGA 120  
 AAATCAAAGT AATCAAGGAA ACTCCTTTAC CTCCTCTAA TTTGCCTGCA AGCCCTTTAA 180  
 TGAAGAACTT TGATACCAGT CAGTGGGAAG ACATAAACT AGTCGGTGTG GATAAACTTT 240  
 CTTTGCCTCA AGACACTGGC ACATTCATTN GCAAGGNTN 279

SEQ ID NO:4639

LENGTH:242

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05502

## SEQUENCE DESCRIPTION:

GATCAGAGCA AAGAGAAAAG AAAGCATAAG GACACTTACT CAACAGAAGC ACCTTTAGGC 60  
 GAAGGAACAG AACAATATGT CAATAGTATC TCAGATTGAC CATTTCTGTT ACTTGTCATT 120  
 TCTACTTTCA GAAACTAAAT GACTTTCAA TTTGGGTATA GACAATAAAG AACTGAAGTG 180  
 CTCACTACTC AGTGATTTGG AAATTTTGAT GCTTGATATA ATGTCAGATA ATTAATTCN 240  
 AN 242

SEQ ID NO:4640

LENGTH:64

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05503

## SEQUENCE DESCRIPTION:

GATCTTGTTA GACACATGAA TGTGTATAAT CATGTTAAAT GCAAATAAAA CTAGTTCATA 60  
 GAAA 64

SEQ ID NO:4641

LENGTH:62

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05504

## SEQUENCE DESCRIPTION:

GATCATNAAG GTAAGGACTG GAGTNATGCA GCCACAAACC AAGGAATATC AGTAGCCATA 60

AA

62

SEQ ID NO:4642

LENGTH:339

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05505

SEQUENCE DESCRIPTION:

GATCAGTNCT AACCTGAGC TGGCGGCTAT CTTTGAAAGT ATCCNGAAAG ATTCATCATC 60  
 TACTAACTTG GAATCAATGG AACTAGTTA GATGTTTGT CACCATGGGG ACCATTACAT 120  
 ATGACCATAC AATGCACTGA ATTGACAGGT TAATCATAAG ACATGGAAAG AGAAGTGTCT 180  
 AAAAGCTTCA AAATGTTCCA CTTTTTTTT CCTTCATGGN GACTGTTTGT TTGGCTTTCT 240  
 TCCATTGTNG TTTTGTAGC ATTTATTCA GAAATGTGA TTTCCATAAT CCAGAGGTTG 300  
 TAAAACCACT AGTGTTTTAG TGGGTACAG CACCATTTN 339

SEQ ID NO:4643

LENGTH:70

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05506

SEQUENCE DESCRIPTION:

GATCTTCCTC CTTATTTTAA TGCTTCTTC TCTTTACAAT TAAAAGTTCA TAAAATCTTT 60  
 CAACATTAAA 70

SEQ ID NO:4644

LENGTH:57

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05507

SEQUENCE DESCRIPTION:

GATCAGCCCT AATNATGCTG TGTCCATGAT GCTTTTAATA AAAACAACCC CCACAAA 57

SEQ ID NO:4645

LENGTH:158

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05508

SEQUENCE DESCRIPTION:

GATCTCTATG CCAATATGC TGCCTCAACT CTGAGCTGTC TGCAAGGCTT AGTAAGTATT 60  
 GAGTGGTGT TTTTTTTTC NTTTTATACA ATACCATNTT AACCACATGA GTTAAATAAA 120  
 TTTGAGAAGT TTTTTTAAA CAGTGCTTCA AACTGAAA 158

SEQ ID NO:4646

LENGTH:153

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05509

SEQUENCE DESCRIPTION:

GATCCCCGGG TACNANTNAN CCATGCAGGC ATGTTTTTTT TNATTTTGC ATAGGCAATC 60  
 CATTCTGTAC AGGTAGCTAA CTTTGTAAC GCTGTGTATT CCCTCTGCC CCATGGCTGC 120  
 TGGTGAAAT AAACATGCATC TCCCGTTGGT AAA 153

SEQ ID NO:4647

LENGTH:342

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05510

SEQUENCE DESCRIPTION:

GATCCAGAAG TCATTAAAAG AAACATAAGG CTGGGGAGGC AGGGGGAGTA AGTTCTATTA 60  
 GAAAATCCTA ANAGCTTAAC AAAACTAGGG TACTAAATTC AGTTATAACA TGTACAGAC 120  
 TTAAATCATA GAGCTGCCCC AACATCTAGA CAGTCTCTCC TACTGATTAT AAATGAGTGA 180  
 AAACATCAG TTAGAAAAAT CTAATTTAAG TTGTTAATAC ATGTTTCTT GGTGAGCACC 240  
 TGGATATANT TATCACAAAT NCTTTTATAC ATATGTCGAA AATGCTTTCA ACAAACCTAA 300  
 GTGTCCTAAT TACATGCCAC TTTTNNAGG CTCACTTTAT GN 342

SEQ ID NO:4648

LENGTH:333

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05511

SEQUENCE DESCRIPTION:

GATCGCTACG GTTCTAAATA CTGAAGTCAT GATGTGTATT TCCNGGAGAA ATTCCTCTTT 60  
 AAATGAACAA GTAACCACAT CTCAGGCGGC AGTGAAGTCC AGATAGTTT GCAGATTGTT 120  
 TTGCTACTTN TNCATATGGT ATATGTTTCT GNTTTTAAAT ATTNCTNTTG AGAAATTCTG 180  
 AGTNCTGATG TAGGAGCTTT CCTGTNATNN CTGTTTCACG TTCCTTCCTG TCACACCCTC 240  
 CTTGTGGCGT CTCTGTGTAT ATCCTNGGCT TTATTTTCTN GGANCCTGN GATTTCACAA 300  
 CTGNGGGCCT GGAGACCTCG GCTCCTNCTG GTN 333

SEQ ID NO:4649

LENGTH:187

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05513

SEQUENCE DESCRIPTION:

GATCATGAGA AATTACCAA ATGTCCACCA ATAGAATGAG TGAATCACCT GTGGTATATT 60  
 TATAAATAAA AATATTAANT AGAAGGTAAC ACAAATCAGA CATACACACA TTAGATAGAT 120  
 AAATTTAGAG GAAAAAATAA AAACCATGCA AGNTTCAGCT NCNCGNGTNC TNTGGTGCA 180  
 CCTAANN 187

SEQ ID NO:4650

LENGTH:228

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05514

SEQUENCE DESCRIPTION:

GATCGAGGGG GTATGCGTGG GGGAGTTGTG AGTGAGCTCA GCTCCTTTCA GGCCTGGCCT 60  
CTCCCAGAAC AGAGTGAAGC CCCTGCCCTG GACCCCTGCT CCCTTCTACC CTTGAGGGCC 120  
ACCAATGGAA GAGCCCGCCC TTCATTCTGC AGCTCCTGCG GCCAGGCTGA GCTCTGCCCC 180  
CAACTTTGTT TTCTCTCATG TTCTCAATAC ACTCTGCCTC AAATCAAA 228

SEQ ID NO:4651

LENGTH:300

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05515

SEQUENCE DESCRIPTION:

GATCTGTAGT TAAGGGAACC AAGGGGTCAT TGGGGCAAAA GCATTGTTTC TCAAAGCTCC 60  
TTGATTAAGA GAAAGAACAG AAATTGCAC AGAAGATAGT GTCAAGGAGT GAGAAAGTTT 120  
GTTTGAGGGC AGTAGCTCAG TGTGGAAGAA AATCCTGAAG TTTCTGTTGA AGCCATACAA 180  
TGTTCTATGG GGTACTCTC TAAGACATTC TCTGAGGTGT GTGAGGAAGT CACTACTCCT 240  
AGCCTTTGTT AAGATGTAAT TTAAATATT CAGTTATGGT ACTATGTTTG CAACTCTCTN 300

SEQ ID NO:4652

LENGTH:154

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05516

SEQUENCE DESCRIPTION:

GATCAGTTTA TATTGCTCTT AAATGATAAT CCTCAGCTTC CAAGTTTTTG TGAACCTACT 60  
TTGGTTTATG TGTTTGCTAC ACTCACTGAG AAATTAAACA CCTTGCTTGA TTTATTGTAA 120  
AAAGGAAAAA ACAACAGAGC CATACTTAAG CAAA 154

SEQ ID NO:4653

LENGTH:250

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05518

SEQUENCE DESCRIPTION:

GATCTTTATG CTGTTATNAC AGGAGAAGTG ACATACTTTA TATATGTTTA TATTAGCAAG 60  
GTCTGTTTTT ANTACNATAT ACTTTATATT TCTATACATN TATATTNCTA ATAATACAGN 120  
TATCACTGAT ATATGTAGAC ACTTTTAGAA TTTATTAAAT CCTTGACCTT GNGCATTATA 180  
GCATTCCATT AGCAAGAGTT GTACCCCCNC CCCAGTCTTC GNCTNCCTCG GGNTTAAGCT 240  
GTTTTATGNN 250

SEQ ID NO:4654



LENGTH:240

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05519

SEQUENCE DESCRIPTION:

GATCCCCACC CCAATTCAAT CCCGGAAGGG ACTTACTTAG GAAACCCTTC TTTACTAGAT 60  
ATCCTGGCCC CCTGGGCTTG TNAACACCTC CTAGCCACAT CACTACAGTA CAGTGAGTGA 120  
CCCCAGCCTC CTGCCTACCC CAAGATGCCC CTCCCCACCC TGACCGTGCT AACTGTGTGT 180  
ACATATATAT TCTACATATA TGTATATTAA AACTGCACTG CCATGTCTGC CCTTTTAAA 240

SEQ ID NO:4655

LENGTH:290

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05520

SEQUENCE DESCRIPTION:

GATCCAAATA GTCAGAAAGA AAGGAAGGAA GTGCTGGTAA GAAGGAAGGG AGGAGCGTAT 60  
CCTAAAGAAC TACTCCCAAC TATACAACTG TTGTTTCCT CCCAATTTTC CTAGGGATTC 120  
CTCATAATTA TCTCCTTCT CTTCATAAAT TCTACTTACT GACCTGAAAT AAAATTTCTC 180  
ATTTGGTTGT CCTCAAGGTG CAGAATATGG ACTTAAGGCT CCTCCAGACA ATTCAAATGT 240  
ATTGTAGACA GTTAAGNTAG AGTAAAACTC ACCGTTTTGT CCCACTGAAA 290

SEQ ID NO:4656

LENGTH:355

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05521

SEQUENCE DESCRIPTION:

GATCGACAGG CATCCACAGT TGAGTATCTC CCAGGCATGC TACATTCAA TTGCCCTAAA 60  
GGTCTCCTAC CCAATTCTC CACGCTGGTC TTNGGTTAAA CTAGGCCCTG CTAAGTCTTA 120  
TAACTTTCAT ACAGTTTGG ACCAACAGGG CTTTATTCCA GGANCAAATT ATCTTATGCC 180  
TTGGGACATT GNCATCAGGA CTAGAGCTGN AGATGAAGGA GACTTAGACA CAAACTCTTG 240  
GCCTGCTCCA AATAAAGCTA TTCCTNGNAA GAGNAGTGCG GTTGTAATGG NTAAGAGNGN 300  
AGANCGGCGA GATGACATTG NTCGAGCTTN TNNTGNCCT TGAATATNGA AGTCN 355

SEQ ID NO:4657

LENGTH:382

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05522

SEQUENCE DESCRIPTION:

GATCCGCAAA CGATTAATTC TGTCAGACAA AGGGCAGCTG GATTGGAAGA AGATGTATTT 60  
CAAAC TTGTC CGATGTTACC CAAGGAAAGA GCAGTATGGA GATACCCTTC AGCTCTGCAA 120  
ACACTGTAC ATCCTTTCCT GGAAGGGCAC TGACCATCCG TGCACTGCCA ATAACCCAGA 180  
GAGCTGCTCC GTTTCAC TTT CACCCNNGN CTTTATCAAC TTGTTCAAGT TCTGGNATCC 240

CAGCACATGA CAACACTTCA GAAGGGTCCC CCTGCTGACT NGAGAGCTNG GGAATATGGC 300  
 ATTTGGACAC TTCATTGTT AAATTAGTGT ACATTTTAA ACATTGGGT CGGNNAACTT 360  
 TCAGNGGTNA GGTGCGNGNN TN 382

SEQ ID NO:4658

LENGTH:326

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05523

SEQUENCE DESCRIPTION:

GATCATTAAA AACTTAAAAT ATATTTTATT AGAAAACATT TATCTATGAA TGAATATTC 60  
 CTTGATGCTG GTCTCTGCAC ACATATGCTT GGTACTTGC ATGCATTCAT TGGTTGTTCA 120  
 ATAAGTGAGA TGATTACAGA TAACTTAATA CTGTATTTNC CTTATATGGA AAACCGTTAT 180  
 AGACCCAATA ACAACTAANC CTTTCAAAAG AAANTATTN CTATTATGAN TGTGATTTT 240  
 CATACCNAAG AAGATGGAGA GTCTAAAATT TGGGNTATGG ATNCTNGATG GNNTTTTAN 300  
 TNGGNAAGCC TTCTNCAAG TTTNAN 326

SEQ ID NO:4659

LENGTH:133

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05524

SEQUENCE DESCRIPTION:

GATCAGCTTT GCAGTAGATT ATGCTGCATC CTCGTGGCAA AATTCTGTAT TCTTAGTGAT 60  
 TGTTACAAAC CCCTTATTG CTGTCTGAGA AAGTGAAAGA TTGTGTATTT CTATTAAAC 120  
 ATTTACAATC AAA 133

SEQ ID NO:4660

LENGTH:264

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05525

SEQUENCE DESCRIPTION:

GATCAACATC CGGAGATGGA TTTNCCAAG GCTAAATTCA ACTAGCCCCT GTTTTTCCT 60  
 CCCTGAATC TTGGGGCTGA GCTGCAACCA CCCAACTTC TTCCCACTC TTCTCTGGGA 120  
 CTTGTGGGCC TCAGGGCTTG GGGCAGGCAT GGGACTGGCC CAGGCACACA GGTCCCGGGG 180  
 CATCAGGAGA AAGGCTGGGT CTTGGGACCT TGTCCTCCCC AGTTGGCCTA CTGTTACACA 240  
 TTAAAACGAT TTGCCAGNT CAAA 264

SEQ ID NO:4661

LENGTH:319

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05526

SEQUENCE DESCRIPTION:

GATCACCTNT TCCCTTCAAT CCTTGTGGCT TCTGGGAATC TTCAGAGCCT GGGTCTGAAA 60  
 GGTGTTTCCT ACATGTCTCA GGGCTGGATG CAAACCTGGC TGGGGACCTG AGCATCAACT 120  
 CCCATTTAGA ATCAGACATC TCCCTTCCCT GCAAATTGTC TACAACTACC AAATTGCTCC 180  
 AGGTTTGAGA TGGTATTGCT AAATTTAAAA TTAACAAGN GACCCANCAN CAGCTTTTTA 240  
 AAGTGTCTNC TATTTTCATNN GTATTTTNTT NAACCTTGGC CCCANTTGNT AGAAAAGTCT 300  
 TTTGCNGAAA TGNATTTNN 319

SEQ ID NO:4662

LENGTH:239

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05528

SEQUENCE DESCRIPTION:

GATCAAAACA GTGTGGTGCT GGCAAAACAA GAGACATAAN TCAGNAGAAG AAAGAGTCCA 60  
 GAATTAGACC CACACACATA TGGACAATTG ATTTTTCAT AAGGGCACCA AAGCCATTCA 120  
 ATGTATAATA GAGAAGACAG TTTTTCAT CAAACAGTAT TGGANCAGTT GNNCANNNTAC 180  
 AAAAAGTAAA CTTCANCCCA TACCTCACAC TATATCTAAA ANTTAGCATC AAATGGNTN 239

SEQ ID NO:4663

LENGTH:68

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05529

SEQUENCE DESCRIPTION:

GATCTATTTA GTCCTACAAA TCAGGAGTGG TGTAGAGACA TCCAAATTTA AAGAAAAAAA 60  
 AACACAAA 68

SEQ ID NO:4664

LENGTH:122

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05531

SEQUENCE DESCRIPTION:

GATCGAGTTT TAAATTGATA GGAGGGAACA TGTCTAATT CTNCTGTCCT GAGAAGCATG 60  
 TAATGTAAAT GTTATATCAT ATGTATATAT ATATNTNCNC TATGTATATA CATATATNTN 120  
 AN 122

SEQ ID NO:4665

LENGTH:196

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05532

SEQUENCE DESCRIPTION:

GATCAGGGAC GGGGCTGAGC TGGAGAGTGT GCAGGATTGA TTAATGATGT CTGCCACGGT 60  
 CAGGCCAACT GCTGTGTTTC TGGGGCCAC AAGCTAAAAA TGGTTGGAAA AAAATCAAAA 120

CATTAATATT TGTGACATAT GAGAATGCTA TGAAAGTCAA CTTTGCTATC CATAAATAAA 180  
GTTTTATTGA CATAAA 196

SEQ ID NO:4666

LENGTH:316

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05533

SEQUENCE DESCRIPTION:

GATCAGATTG CTCAACTCCA TTATAATTTG TTTCCAAACT AATCTGTTCA GGCAAGATAA 60  
AGATATAAAT GTGGATTGTT GCTGAGGTTA AGTCTGGTCA GATTTTNCCA NTTATGCTTG 120  
AAAAGTAACC ATATTTCAAT CAAATATATA ATATGTATAT NTCATAATAA TATANGCAAT 180  
ATTAGTCTCA TTATTAATTC AAAANTCTCA TCTATATTTT ANCACTGTAG AACATTATTA 240  
NNTGANTAAN TGACCTATAA NTATTGGTG CCTGANGAAG TCACTTTGCT ATTANTNATA 300  
CGGTGTAGNG TGTGGN 316

SEQ ID NO:4667

LENGTH:168

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05534

SEQUENCE DESCRIPTION:

GATCTCAGGG AAGCCTGGGA GTCCCTTCTC ACCCCTCAAC CTCCGGAGTC CAGGAGAACC 60  
CGTACCCCCA CAGAGCCTTA AGCAACTACT TCTGTGAAGT ATTTTTTGAC TGTTCATGG 120  
AAAACAAGCC TTGGAAATAA ATCTCTATTA AACCCTTTG TAACCAAA 168

SEQ ID NO:4668

LENGTH:311

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05535

SEQUENCE DESCRIPTION:

GATCATCCCA TCCTTGACCA CAGGGACAAG AGGGGCCCCC TCGCCCCAGC CCCACCCAC 60  
ATGGAGCTCA GGGGAAGCA GGGAGGGGT CCCTGCGGAG GCTAGGAGTG 120  
GTTCTTGATG CTCACCTGAA GCCCCTAGAC GCTGCTAGGA GGGGGGGCCC TCCTGGGCCC 180  
NAAATACCCN TCCGCTTGCC GCTGCTAGCG NACCCCTGCA GTCCAGCGTG CATCCACCCC 240  
ACGNACGTCC CGTGCTGTGT TCCTGGGCCN TGTCCATGGC CTNAATAAAC TCTCTGCTTG 300  
GGTGTGACAA A 311

SEQ ID NO:4669

LENGTH:167

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05536

SEQUENCE DESCRIPTION:

GATCGCAAGC TGTGATGCA CAGGCGTCTT GTTGGCAAGC CCAGCTTCAG TTTATGTTAG 60  
 ACAATCAGTA CACATGCTGG TGTGTTTCC AATGGCCAGT NATAAGAAAT TAAATAAGTA 120  
 TTTGTGAGAT TTGCTATTTT TTAATAAAGT AATTNTTTTA AATTAAA 167

SEQ ID NO:4670

LENGTH:118

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05538

SEQUENCE DESCRIPTION:

GATCTCATAC TTGTATAGAG TAATAACAAC AGTTGTACTT CCACCAAAGG CATGTGGCAT 60  
 ATTTACCAAT GTCATGTATT CTGAACAAAG GCAAAAAATA CAAATTCCTA CCATTAAA 118

SEQ ID NO:4671

LENGTH:311

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05539

SEQUENCE DESCRIPTION:

GATCCTTCAA ATAGGCCCTG AGATGTGAGG TCTGCTGCTT CACTGGGGCC CGATGACTTT 60  
 GGCTGGGGGA GGGGGCCTAG GGCTCTNCTC ATTGAAAGCT CTGCTTTATA CAGACCCAAG 120  
 CATAACACAC AGGCCGTCAC TTTGGGTTCT GGCATAAGTT CAGAACAATT CAAGTCCATG 180  
 TGTCCCATGG CTGGTCAGAG CCCTGGGTCA AAACCACTCA GCCCAGGGGA GGGGATGAGG 240  
 CATTGTCACC CTAGACCCCT CTTCTCTCT CCCNCACCAT AGTGTGCAAT AAAGTGTCTG 300  
 TTCTTACCAA A 311

SEQ ID NO:4672

LENGTH:338

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05540

SEQUENCE DESCRIPTION:

GATCTTGTCAGAGCTGCACC TCTCTGTGAA CTGGCCATTC CTTTCGGTGC TGCTGTCCTT 60  
 TTTGGGGGGG TTCCTGATTT CTGTATACAT GTAGCTTTGC CAGATATGTA CTTAGTAATA 120  
 TAAACTGTAT TAATAAAATC CATTTACTGT GTAATACACG AGTTTAAAAA TTAAGAGCGA 180  
 TTAGCTGTTC ACTTTGGTAA CAGGTAGTTA AGTGTACAC AAGGTGTTGT TGCAATGGCA 240  
 TGACGGTGAC CTGTTGGNGG NACTAAGCCT TACAGCAAGG CATGTGCCGN ACGTGCTCCG 300  
 TGGTACTTAG AGCCCTGGGG GCCCGNTCG GACTCCGN 338

SEQ ID NO:4673

LENGTH:117

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05541

SEQUENCE DESCRIPTION:

GATCTGTTTA CAAGGTTTGT AGATACTTTT TTTGTTCTG TTCATAGATG GGAAGCTTCC 60  
 TTATAACTGA TGCAGAGAAA AATTAGTCCT TCAAATACTG CTGTATTTTC AGGAAAN 117

SEQ ID NO:4674

LENGTH:279

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05544

SEQUENCE DESCRIPTION:

GATCAGTGTT GCTAGTAGCT TGGCAGCTCT TCATAAAAGC ATATTGGGTT GGNAAGGTGT 60  
 NTGCNTATTT TTCAAATNAT TTAATAGATG TNTGGTACCA TTAAAAGTG GTTGTGTCTG 120  
 AATTTACTGT GGGGATAACA TACACTGTAA TGGGGAAAAA TTACCTAAAA CCAATTTCAA 180  
 AANGGCTTTC TNTGTATTTT AGTTTAAAAA CCCAGTGCAT GATNCGCCCT CTGGAGATGC 240  
 AATAAACNCC TTNGTGCCAA AGGNGATTGC CNGNGGAGN 279

SEQ ID NO:4675

LENGTH:137

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05545

SEQUENCE DESCRIPTION:

GATCTGTAAT AAAATAGTAT ACTGGACTGT GCATCAAAGG GATGTAAAT TACAGTATTC 60  
 CAAAGGTGA AGTTCTGCTG TTTTGTATA ATGCCTGATA CACATCTTGA ATAAAGTCTT 120  
 AACATTTTNC TTATAAA 137

SEQ ID NO:4676

LENGTH:259

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05547

SEQUENCE DESCRIPTION:

GATCATAAAA ATTAATATGT GAATGTCAAC AATAAAAAGC AAGACTATGA AAGGCTCAGA 60  
 TTTCTTGCAG TTAAATATGG TGTCTGAGGT TGTNCTATTT TGGCCAAGTC TGTAGAAAGC 120  
 TGTCATTTGA TTTTNATTAT GTAGTTCATC CAGCCCTTGG GCATTGTTAT ACACCAGTAA 180  
 AGAAGGCTGT ACTCAAGAGG AGGAGCTGAC ACATTTCACT TGGCTGCGTC TTAATAAACA 240  
 TGANTGCAAG CATTGGAAG 259

SEQ ID NO:4677

LENGTH:261

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05548

SEQUENCE DESCRIPTION:

GATCATCATG ATGAGTTTTG CCTTATGCCT TGAATCTTNA GGTTAATAGT CATAAAATCC 60  
 CTGCTTTCTA AATTCGCATT TTTCTGGTG TACCNTTAAT GTGAACNTTT TGGCATTCTT 120

CTGCAATNTT CTGATTGGAG ATTGCATTTT GACCTAGTCT GTAAGTTTTT CTGTCAGAAG 180  
 AGGACTTTCA TCAACTTTCA NGGNAAGATT GTTTATTGGC ATACTGTAAA GTTAAGTNAN 240  
 GCANTTTNAA AGTNGTCTAA A 261

SEQ ID NO:4678

LENGTH:183

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05551

SEQUENCE DESCRIPTION:

GATCCGATTT TACCTTGGAC CCCTGCGTCT TGCCCCTGGG AACCCANATG GGGACTGCTC 60  
 TGAACCTTTG GATGACATNT GTGGCCCCGG AGATGTTCTC AACCCAGGGG TGCCCTTCGT 120  
 AAATGTTNCT CCATCCTCAC TGTACCAGGA GTGTGTGAAT AAACACAGAC CCCCTCTGTG 180  
 AAA 183

SEQ ID NO:4679

LENGTH:234

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05552

SEQUENCE DESCRIPTION:

GATCCCAAGT ACGTGGAAGT CATCAGAACC CCACGGTACT TTGAGTACCT CTCTGCACCA 60  
 AGATAGCTGA CTGNTTTTCT GCTCAGTCAC AATTTTACTT GNAAGCAAGN ATTGTCCTAG 120  
 NTCCTNTTCC ATTATCCAA AACGTTTAAAC GTTCAAAGCA GGGTCTCATT AAAANCCCAA 180  
 CTA CTGTTG ATATAATTGA GATATTACAA TTTCAGAATA AACATTTGAT TAAA 234

SEQ ID NO:4680

LENGTH:316

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05553

SEQUENCE DESCRIPTION:

GATCAGAATC TTCAAGAATC AGTTAGGTTC CTCACTGCAA GAAATAAAAT GTCAGGCAGT 60  
 GAATGAATTA TATTTTCAGA AGTAAAGCAA AGAAGCTATA ACATGTTATG TACAGTACAC 120  
 TCTGAAAAGA AATCTGAAAC AAGTTATTGT AATGATAAAA ATAATGCACA GGCATGGNTA 180  
 CTTAATATTT NCTANCAGGA NAAGTCATCC CTATTTTCCTT GTNTTACTGC ACTTANTATT 240  
 ATTNGGTTGA ATTTGTNCAG TATAAGCTCG TNCTTGTGCA AAATTAANTA NATATTNCTC 300  
 TTACCTNATA NCANAN 316

SEQ ID NO:4681

LENGTH:304

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05555

SEQUENCE DESCRIPTION:

GATCATCCTG GAATCCGACT CTGTCTCAGC TCAAGGGGGT TCNGAGATT CTAAGCTAG 60  
 CCCTCTCATT TTACAGCTGC AAAACGGAG GCCTGTTAAT TCAGTCATTT TATGAAATCC 120  
 TTTGAAATTT TTATTGAGCT CTAATTGTGT GTGAAGTATT ATGGAATGCT TCTGTACTGG 180  
 AATGCATAGG TTGAACAAGA CAGAAAGGCC CAGATGGCAG AAGTTCAAGA NCTTTCACCA 240  
 ACCCATATAG NGAACCTAGT AATATTAATG ACTAATGTTA ATGGANTCCA TGCTTTGTGA 300  
 CGAN 304

SEQ ID NO:4682

LENGTH:287

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05556

SEQUENCE DESCRIPTION:

GATCAAATCG GAGTACTTAG CATATCTATC ATCTCGTGCA TTTATCATTT CTTTGTGGCG 60  
 AGAACATTTA AAAATCCTAT TTTCTAGCTA TTTTGTAAATA TACACTACCT TACTGTTGCG 120  
 AACCATAGTC ACCCTACTGT GCAATAGAAC ACCTGAACTT ATTCCNCCTA TCTAGTTGTA 180  
 ACTTNGTACC CATTGNCCCC CCNTCCCTNC CTTCCACTCT CCCCTCCCCA GNCTCTGGTA 240  
 ACCACTGTTC TGTCCCTAT GAGATAAAAC TTTTTTTGNC TTCCAAA 287

SEQ ID NO:4683

LENGTH:298

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05558

SEQUENCE DESCRIPTION:

GATCTTTTGA AGATTGCTGG AATACTGGTG TCTGTTAGAA TGCTTCAGAC TACAGATGTA 60  
 ATTAAGGCT TTTCTTAATA TGTTTTAACC AAAGATGTGG AGCAATCCAA GCCACATATC 120  
 TTCTACATCA AATTTTCCA TTTTGGTTAT TTTTATAATC NGGTATTGCA TTTTGCCTTC 180  
 CCTGTTTATA CCTCAAATG ATTACATCCT CAGTTTAATT CAGAGAGGTC AGTTAAGTGA 240  
 CGGATTCTGT TGTGGTTTGA ATGCAGTACC AGGNTTCTCT TCGAGCAAAG TAGACCTN 298

SEQ ID NO:4684

LENGTH:297

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05559

SEQUENCE DESCRIPTION:

GATCCATCTT CCTTACACTC CTTCCAAAAT AATGTTAATA CTCTGTCTAT CAAATGCTTA 60  
 CAGTGTTCCT TAGCACATAT AGGGTAAAGT CAAAGCTCAT TAGCAGGGCA TAGGAGGCC 120  
 TTCATGACCA GCCTNACCNG CACCTCTAGC TACATCTCCT ACTGNGNCA CCTCCACATT 180  
 TACCCTTCGG CATGCCAACC TGCTTATGGT TACGGGGCAC AGCTTGCTGT TTTGGNTNNT 240  
 GTGCCTCCCN TTGTTTGTCT TCCTGNTGNT GAANTNATGN TGGGACCATT CTTGTGN 297

SEQ ID NO:4685

LENGTH:120



TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05560

SEQUENCE DESCRIPTION:

GATCAGATTC ACTGTTTCAT CATATTTATT GTAATATATT TTTTGTGTTG TAAATATGTT 60  
ACAACAAAAT GTGATTGGTC TAAAATATTT GTAATGTATA TTAAAAGGTT CAAAAATAAA 120

SEQ ID NO:4686

LENGTH:53

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05561

SEQUENCE DESCRIPTION:

GATCAGAGGA GTTCAGGGAG ACATACATAA AAATGTTAAT CACGGTTTTT AAA 53

SEQ ID NO:4687

LENGTH:363

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05562

SEQUENCE DESCRIPTION:

GATCGCCAAG TGCAGGCACG GCATCGCATC CCCAGGTGTC ATCCTGTGAC CCAGGAGGGG 60  
AAGATGACAC ACCCAATTTA GGTAATGCTG CACTTCTNGT TATAATTGGT TATTGGAAAA 120  
TGTGCCTTTA TTATCAGAAC AGTGGTGTGC GCATTCTGA TTATGGAGCT AACTTTTGGA 180  
TATCTGACTT AGATACTAAA AACATTGGG TGTTCAGTT TTGCACTTGT AGATACAACT 240  
TAAAAGCATG AAATGGTGA TTAAATTAGA TGTCTCTAT AAAATGCACC TTGTTACATT 300  
TCTGTGAAAAG GGGTCTTACC AGCGTGAAT AACNTGGCTC AAGGGTTTGA GGGGANCANC 360  
NGN 363

SEQ ID NO:4688

LENGTH:109

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05563

SEQUENCE DESCRIPTION:

GATCCACGTG TACTGGCACC TCAGAAGACC AAATCATGGN CTGTACAAGT CTCTATACAA 60  
TGTCTTTATC CCTGTGGGCA GNANGCAATG ATGATAATGN CAANCAGGN 109

SEQ ID NO:4689

LENGTH:369

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05564

SEQUENCE DESCRIPTION:

GATCAGAAAG CATTAGTCC AGTCAGAATT CAAGGTGGGA AAAGTAGGTG TATTTCTGAN 60

CCATTTGGGA AGGAAAATCA TTTTCTGAA CANCACTACC TGCATTCTG TTTCTGCAGA 120  
 CAATCAAAAA ACAAAACCANT AAAANTAAGT AAGTGAANGA AAGGCCANTT AGCATTATTC 180  
 ATTTGCCTTA GGTTCACAGG GTCACAGATT CATTAGCTTA ATTACATCCT CATTTTGGNT 240  
 GCCAAAGAAT GGAGCAAGAG CANTCAGTAT TGCTANCTGG CTCTTGCTTC TTCTTCCTGG 300  
 GTTTGTTTTG GTTTTNCAGA GAAACAGGGA AGNGAGGGCA TTNGCNNAGT ATAATTGGTN 360  
 TATAGGAGN 369

SEQ ID NO:4690

LENGTH:70

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05565

SEQUENCE DESCRIPTION:

GATCATAAAT GACTTGCTG AATTCAATCA TTTTAAACA GCCAATAAAG TTTGATAATT 60  
 CATCTCCAAA 70

SEQ ID NO:4691

LENGTH:293

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05566

SEQUENCE DESCRIPTION:

GATCCTCAAG GCCTTGCTCT NCCCCGTGGA GACGCTTGCT CGGATGAGCT CAGGAAACAG 60  
 TACCGGCTGC GTGGCAGGTC TGGGTGTTGT GTGCGAGGAC GTGGCCTTTG CACACCGCTG 120  
 TGTTCTCAGA GGTCTTAGG AGATATTTTT TTTTGTCTTA GGGGGACTGT NTAAGTTCA 180  
 GACAAATCAN GCTGGGTGTG GAGAGAGTCT GAAATACGTC AGTGAAGTAA GTAGCAGTGA 240  
 GCGATTGTGA ATTTGNANTN TAAATGGAAA ACCGGGTTTT TACCGNGTT TTN 293

SEQ ID NO:4692

LENGTH:251

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05567

SEQUENCE DESCRIPTION:

GATCAAACTC TTCATTGAAG TACTCATNAG GCGTGATGGC TGTGGGGTTG TTTGCAGTAG 60  
 CACATTNCGT GGTGAGGTCC TGCTGAGCCA GNACTCAGGA GAGTCAGAAA TGCCAAANN 120  
 TGTTCAACAAG TGAAGGCCTG TGGCACTCAG TGTCTGAGGT GGACGTGTTA ACCAGCTAAA 180  
 GACCGGGAAG TTCTATTCAC TAACTTTTT GCATGGAACA AGAAAATCTA TGAGGATATC 240  
 ACCAACTAA A 251

SEQ ID NO:4693

LENGTH:97

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05568

## SEQUENCE DESCRIPTION:

GATCCATCTT GCTTTTGCCT TATATAAAGA CTACAGTTAT GGAAGTNTGG AAAACTGTGG 60  
 CTTCTCAATA AATATTCAGA TGTCCTAAGA NTATAAA 97

SEQ ID NO:4694

LENGTH:106

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05570

## SEQUENCE DESCRIPTION:

GATCTCACAA AGTACAAAAC GAATGCCTTT CTTTCTTGT TTATAATGGT CACTCACTGT 60  
 GTTTGGTTAC TGTCAAGAAA TCAATAAATG TGTTAACAA GTTAAA 106

SEQ ID NO:4695

LENGTH:106

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05571

## SEQUENCE DESCRIPTION:

GATCAGTNGA TATTAAGATG AGATTACAAA TTTTNTTAAG TTCAGCCATT ATTACTTTTG 60  
 GTATCCGAGA ACATGACAAA TTATGAATAA AACAAGTATA CATAAA 106

SEQ ID NO:4696

LENGTH:149

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05572

## SEQUENCE DESCRIPTION:

GATCCATAAA ATTTTATTAA TCAAGATATC ATATTAAAGT ATTATTATAT TAATTTATGA 60  
 CACCAAATTT TTAACCAAT TTTATGTTTT TCCTTATGTA TCATTATAAA CCCTATTGCA 120  
 TTTTATAAGT AATANANTAT TTNAGAAA 149

SEQ ID NO:4697

LENGTH:356

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05573

## SEQUENCE DESCRIPTION:

GATCGCGACG GCTGGTTTGC ATCGCCAGCT TCTATATATT ACGGCCTTTT TTTTGCTGG 60  
 ATATTATCTT GTAAACGTG AAGACTACCT GTATGCTGTG AGGGACCGTG AAATGTTTGG 120  
 ATATATGAAA TTACATCCAG AGGATTTTCC TGANGAAGAT AAGAAAACAT ATGGTGAAAT 180  
 TTTTGAAAAA TNCCATCCAA TACGTTGAAG TCTTCAAAT GCTTGCTCCA GTTTCCTGA 240  
 TACGTGCTGT TTCTGAATTT GNTGGGGCAT GTTCTTATG GCANTTGGAG GCTNATTGNT 300  
 AATNTGTATG TTGGCACCTT GTNATTAATAA TACGGGGCCA TGNNANAAAA AAAAAA 356

SEQ ID NO:4698

LENGTH:190

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05574

SEQUENCE DESCRIPTION:

GATCCACCTG CTTGGCCTC CCAAATGTTG TGTCTTTTA AAGTATCTAC AGTAACCTTG 60  
TATCAACTTA GTTGTGCTAGT CTATTAATAC TAAATTTAGC TCCTTCAAAG CAGTTGGAAC 120  
TATGTGCTAC ATAAATTTC A GTTTCACCCA AGGGAAGAAG TGAAATTAGT GAATAGACAG 180  
TTACAGCAAA 190

SEQ ID NO:4699

LENGTH:81

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05575

SEQUENCE DESCRIPTION:

GATCCGNTCC CAGACGGCCT TGGACTGCTT GCATTTCCTT GGAGAAAAAG GGGTTAATAA 60  
ATGGGCCATC CTTTCCTGAA A 81

SEQ ID NO:4700

LENGTH:89

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05576

SEQUENCE DESCRIPTION:

GATCACTGTG GGGTCAAGAA TGTCTTACAT GTTTTATTCA TCATTCTTGA NGGAAGAAAT 60  
AATTCAAACC TTGGAATTAA AAAGTCAAA 89

SEQ ID NO:4701

LENGTH:311

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05577

SEQUENCE DESCRIPTION:

GATCTTGGCA AGAAACCCTA ATCTCCCTCC AGAAACAGTG GACTCTCTAA AAAATATCCT 60  
GACTTCTAAT AACATTGATG TNANGAAAAT GACGGTCACA GACCAGGTGA ACTGCCCCAA 120  
GCTCTCGTAA CCAGGTTCTA CAGGGAGGCT GCNNNNACTC CATGTTACTT CTGCTTCGCT 180  
TTCCCTACC CCACCCNCCG GCATAANGNC ANACCAATCA ACCACGACAA AGGNAGTTGA 240  
CCTAAACATG TAACCATGCC CTACCCTGTT ACCTTGNTAG CTGCAAAGTA AACTTGTINGC 300  
TGNCCTGCAA A 311

SEQ ID NO:4702

LENGTH:94

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05578

SEQUENCE DESCRIPTION:

GATCTCTCTT GCACGGGCCT TGCCAAGGCC CAGGAGGGAC TTGGGCAGTA TGTTCATGTG 60  
GTCATATGTT TTTGTAAAAA ATTGTGAAAG TAAA 94

SEQ ID NO:4703

LENGTH:248

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05579

SEQUENCE DESCRIPTION:

GATCCGAATC CGACTGTGGG GGGCGGGCTG GGAGGTGGGA GCCGCGTCTC AGGCCCCGGCC 60  
GTTATCAAGG CCCCTCCGCC CCCGAACCCT GGGGAGCTGG ACCAGGAGGT GGAGGCTCAG 120  
GGGACCCCAT GGGGACAGGC AGAGCTGGTC TCCTCCCAGC AGACGGAGCC AGGACGGGCA 180  
CAAGAGTCTT GGAGGTTTGC GTGTTTCTGC TAGAATTAAA AAGTTAAATT TAAAAATGAA 240  
AATGNAAA 248

SEQ ID NO:4704

LENGTH:66

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05580

SEQUENCE DESCRIPTION:

GATCAGCAAA GTGAGACAAA AGAAGATACT TCCCCAAAGA AGAAAAAGAA AAAATTGAGG 60  
CAGAAA 66

SEQ ID NO:4705

LENGTH:65

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05581

SEQUENCE DESCRIPTION:

GATCGGGTCT CGGAAGGGAA GTAGCCATCA CACCATTAAA AAGCCTGTGG ACCTTTAAAG 60  
GNAAA 65

SEQ ID NO:4706

LENGTH:308

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05582

SEQUENCE DESCRIPTION:

GATCTTCTTA GGACATCTTT TTTAAAAAGC TGTTTAGTAT CATTTTGTGT ATATTGTTGA 60  
AATGCTTTT CATCAATAGC AGTCANCATT TTATCCTTTC TTTTATATT CATAATGTTA 120  
TTTAAGTGTC ATTGATGTAC TGTATTGACT TGGGGTTTGC TTATTGTGA CTTAACATGT 180

GTACATGCAT GAAAGCATTT TTNGTTGTTT CCTGATAGTT ACAITTC AAC CTTGGGATTT 240  
 TNCCAAATNA CTTAAGANGT TTAATGTCAG TNAAGATTT TTTACCCTC NTTTTGGGAA 300  
 CATCAATN 308

SEQ ID NO:4707

LENGTH:323

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05583

SEQUENCE DESCRIPTION:

GATCCGGAAG ACCACGGCCA GCCAGGTGTA CGAGACATTG CTCACCTACA GTGACGTCGT 60  
 GGGCGCGGAT GTGCTGGACG AGGTGGTGAC TGTGCTCAGT GACACTGCGT GGGACGCAGA 120  
 GCTTGCACTG GTGAGAGAGC AGCGCAACCG TCTGTGTGAC CTTCTGGGCG TACCCAGGCC 180  
 CCAGCTGGTG CCCAGCCTG GTGCNTGCTG AAGCCAGTCC TTGGAGCCCA TANTCAGCCC 240  
 CTGCCTGGTG AGGATGTCTT GTTTCCTGAG GGTAGGCCGG TTGTGAAAAA GCCTCANNAC 300  
 NAGTGNTGCC TNNAGGCTGN GAN 323

SEQ ID NO:4708

LENGTH:302

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05585

SEQUENCE DESCRIPTION:

GATCTTCCTT TGGAACCAGG CACATTTGGC CCCTTCTCAG TGA CTGCACT GTGGA ACTCT 60  
 TCTTAAGAAA ATATTGAAAA CAGCTTAATG CTTTCATATA GTGACCGACA TTAGTTGAA 120  
 AACTACTGCT GCATAGCAAA TATTGTGACT CTTTATGTGT CCACAGGAGC TCTTGTGTGG 180  
 GTTTAAAGCT ATGAAGTGTA TTCACATTGT GAAGTTTAA TTATCTTTAT TGAAATTAAT 240  
 TGTGTAAAAA TGGTATGTGC TCTATTAGGT ATTCAGTTTG TATGTGAATT CTATAAAGAA 300  
 TN 302

SEQ ID NO:4709

LENGTH:302

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05586

SEQUENCE DESCRIPTION:

GATCCCTCTC AGCTACTGGG AGCTGCTTTG TGCCTTGGAA GCCTCAAGCT GAAATGGATG 60  
 TCAGCCTCAA GTTAACTCC AAGAGGGTTC ACCTTGTTTC TTTGAACAAA ATGTGCTGCC 120  
 TGTTGCTTCC CTTTGCCAGG AGTGGTGTTT CCTTTCCAC AGGTCTGGAC CACAGTGTCT 180  
 CTAGCTCCCG CTCCTGGATA CTTGGTTACT GTGTGTTTCG GGAAAAAAGG ATNCACAACA 240  
 TGAATATNCA CTAAGCTGTA ACAGGGGCCT GCTGCANCTA TAGTATTTCC TGAAAAAGTA 300  
 TN 302

SEQ ID NO:4710

LENGTH:161

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05587

SEQUENCE DESCRIPTION:

GATCTTGCCT CTTTCCTCCT TCATGAAAGC AGCACACATT GTGTAACTT ATGTCTCTTG 60  
TTAAATNAGC TTAATGTCTT TGTGTTTTGT CCAAACTGT ATTGNNNNAA TATTGTTTAA 120  
TGCAAATNAA GGAATGCAAT AAAGAGTAAA TATACTTGAA A 161

SEQ ID NO:4711

LENGTH:120

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05588

SEQUENCE DESCRIPTION:

GATCAGAGCG TGGGAGGAGG TGGGGGTGGA CGTCCATCCG GTGAACAGTG AAGGCGTTTG 60  
TGAGGTCTTT CTGGTCCCAG CATGAAATAA AGCCTTGCC TGGGGGCCGC TTCATTCAA 120

SEQ ID NO:4712

LENGTH:297

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05589

SEQUENCE DESCRIPTION:

GATCTGGCAG TACCCAGCCC TTGTGTGTGT GCGTTANTCA GCACCTGCCC AACTGCGAG 60  
CCCCGTAGG ATGTGCCTTG TCCTTCCCTG TTTCAGCACT TAACACACTA CCTGGTACAG 120  
AGTATGTAGT GGGCATCTGT TGAATGAATG CTTTCCCAG TAGCAGTGTA TTCATACAAT 180  
ATTAATATAA TTGTCCCCTG GCTTACAGAT ANAAATGAAA GCATCAAGTG CCCAGTTGAG 240  
TGAGACCCAG GTGTTCTTCC TNCACCCCTT AGTGGTTCCC CTGGGGGCAG NTCTTN 297

SEQ ID NO:4713

LENGTH:67

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05590

SEQUENCE DESCRIPTION:

GATCTCTGCG CTAGGTCGTT TACCGCTATT TATTTTATG GGGAAAATAA AACTCTCAA 60  
AATGAAA 67

SEQ ID NO:4714

LENGTH:50

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05591

SEQUENCE DESCRIPTION:

GATCACTAGA TGATTCTAAC ATCGAAATAA ACCTCTTTT ATATGGCAAA 50

SEQ ID NO:4715

LENGTH:233

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05593

SEQUENCE DESCRIPTION:

GATCTGGTGC GTGTGGCCCT GTGGGAGTCC ACTTTCCTCT CTCTCTCTCT CTCTGTNCCA 60  
AGTGTGTGTG CAATGTTCCG TTCATCTGAG GAGTCCAAAA TATCGAGTGA ATTCAAAATC 120  
ATTTTTNTT TCCTCCTTNT CAATGTGATG GAATGAACAA AAAGGAAAAA ATTCAAAAAA 180  
CCCAGTTTGT TTAAAAATA AATAAATANA GCAAATGTGC CANTTAGCGT AAA 233

SEQ ID NO:4716

LENGTH:282

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05595

SEQUENCE DESCRIPTION:

GATCTTGCCCT TGAGGAAGAC CCAGGCCATG TTCCCAAAGG NCAGCGGGGG CCCTGGATTG 60  
TAATGCAGCC TCGGGACAGG GCTGAGGCCT GCGGGGGAAG ACCTATACCC CACGACTGGG 120  
CCTGGNTTCA CCTCACCTA ATCCCCGGG AGGAGCTGAC TGATGCAAAA AGCTGAGGNN 180  
GCCTGCTGGG NNGTGGCTGT TTTNATGNCC CAGCCCCGNN AAGTTGGGGA GTGTTTGTGG 240  
GGGTNCAGAG CCCTNCCCCA GNCAGGAGAG AACCTTCCTN TN 282

SEQ ID NO:4717

LENGTH:80

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05598

SEQUENCE DESCRIPTION:

GATCTAGGAC TAATCAAGG GTCTAGATT ACCTCCAAAC TTTGTTTATC TACAAAAAAT 60  
AAAACCTCTAT CTTCTTTAAA 80

SEQ ID NO:4718

LENGTH:204

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05599

SEQUENCE DESCRIPTION:

GATCCTTCCC CTCTCAGACA CCCCTCTTTC AGCTTAGAAT TTGGGGAACC TATAGAGAAG 60  
TCACAGAATC CCATGAAAGG GAATGGGGCA GGAGCCAGGG GTGTTTTTNC CCAGTGCAGG 120  
GTTGTGTCTT TGTGTCTCTG TCTCTGTGAC TGTAATCCT GCCCTGCCCC ACTCCCAATA 180  
AAAGCTTTGG TGTATAGGCT CAAA 204

SEQ ID NO:4719



LENGTH:83

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05600

SEQUENCE DESCRIPTION:

GATCAGTTTG TTTCTTTCTG TGCTGGTAAC AATAAGCGTC GCACAGACAT GGTTCAGGT 60  
AANTAAATCT ATTCTATGAT AAA 83

SEQ ID NO:4720

LENGTH:289

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05601

SEQUENCE DESCRIPTION:

GATCTCTGGA TTGTGTTATG TCAGTGTGG TAGGTTAGGA ACTAGATTTC CCAGAATCCA 60  
TTCCATTTGT NATTCATGA TACAATTGAC CAGTAACCTA TCTTACATGA GATTCGGAAG 120  
TAAGTTAAGA AGGCATTAGT CATGGTTTGG AAGCACCATA CAGGGAGACA GCTGTGTGAA 180  
TACAGGCTGT ATGGACACTT GCTTCCATCC CATTNNCCTG CTTCTTTGGG TTGCCAATCA 240  
AGTGTATCCT CAAAACGACT TGACTTTAAT TTTCTCGGAG GTGATAGTN 289

SEQ ID NO:4721

LENGTH:235

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05602

SEQUENCE DESCRIPTION:

GATCAAGTCT TACATGCCCA TTCAGCTTCT AGGCCCCCCT CACCTCCCTG CCCTCATTCA 60  
CAAGTGGCCC TGAGACACGT GAACACCTCC CTNCTATGCA TCACAAACCT TCTCCACCGA 120  
GCTTTGGTGC TTTNGCCTCT GGNACACCTA ACTAGCATTG GCAGAGGAGA GTCTACACTC 180  
TNTNCTNAT TCAGGGTNGA TGCTTTAAGA AATNCTGNCT CTTGTGNANG CAGAN 235

SEQ ID NO:4722

LENGTH:276

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05603

SEQUENCE DESCRIPTION:

GATCGTCAGC ATCATCGGAG GCATCAGTTC CTTCTTCATC TTCATCTTCC CAGGTTTGTG 60  
CCTCATCTGT GCAATGGGTG TCGAGCCTAT AGGACCAAGA GTCAAGTGCT GCCTGGAGGT 120  
CTGGGGAGTG GTCTCTGTGC TGGTCGGCAC CTTNATCTTT GGGCAGAGCA CGGCGGCAGG 180  
GTCTGGGAGA TGTTCTGATG GGCAGCCAGT GCCGGGCAGG AAGGGGCCCT CCGGGGGCTG 240  
ACCCTACGTG GCTGCTGTAT GCAGNNGGGA GANCAN 276

SEQ ID NO:4723

LENGTH:278

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05604

SEQUENCE DESCRIPTION:

GATCAAGGTC ATAGAAAGTG AAGATTATGG CCAACAGTTA GAAATCGTAT GTCTGATTGA 60  
CCCGGGCTGC TTCCGAGAAA TTGATGAGCT AATAAAAAAG GAACTAAAG GCAAAGGTTT 120  
TTTGGAAGTA CTCAATCTGA AAGATGTAGA AGAAGGAGAT GAGAAATTG AATGACACCC 180  
ATCAATCTCT TCACCTCTAA AACACTAAAG TGTTCCTGTT TCCGACGGCA CTGTTTCATG 240  
TCTGTGGTCT GCCAAATACT TGCTTAANCT ATTTGGAN 278

SEQ ID NO:4724

LENGTH:280

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05606

SEQUENCE DESCRIPTION:

GATCTGGAAT GCNACGGGAG CACTTGCTCT GAGGAATCCC AGGGTGACTC TGTCGGGGAA 60  
GAATCCGGTC ACAGCCTCCC CTCAGAGACA GGCCTCANTT CGAGGGCAGC CCATTATCTG 120  
TCGCAGCATC TGCCATGTCC CTNAGACTGC GGGAGGCAGG GNATGCATGG GTGTCCCAT 180  
CTGTCCCTGG TGAGAAGCAA GGCTAGCTCT GCCTTCCACA TGCTTNTNAG GATGCCAAGA 240  
GGCCTAGGAA CCCAGNAACC CCCTTGNGAG GAGCTGTGNN 280

SEQ ID NO:4725

LENGTH:253

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05607

SEQUENCE DESCRIPTION:

GATCTGCATT CACCTTAGGG CTTAGCCTCT NATTTTATGA ATTTTCAGGC TGTGATTNGT 60  
GTTGGATGGC TAAGNTCTAA GATAATGCAA ATAGCCCCAA TCTTTAAATA TAGCGGTGCT 120  
AAGTTGAACA NGTAACACAN TACAGAAAAT GCTGATATGA ATAATTAGTA ATAATACAAA 180  
AGTTCCTGCT AAATTATATA TGTGTATCAC TGCCTGNCNN GANACCCAC TTNCTTTTC 240  
TAATCCAGCN CAN 253

SEQ ID NO:4726

LENGTH:301

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05608

SEQUENCE DESCRIPTION:

GATCCAGATA GCCTAGGGTG AGGGTGACAG AGGGACAGTG GGCTATGCCA CTAGGCCCTG 60  
GTCTGGCTTT GGAAAGACCT NTGAGGGGAA ACCTTCACCC AGCACCCTG CCCCCTCTG 120  
CTGAGGCCAG AGGAAGGGAG GCCTGAGGGG CAGATTNGTT CATGCCTGGG GTGGAGGCTA 180  
AGCCTGGACA CAGTCAGGGC GGGGCTGGCC AGCTGTGCGA GAACACAAGC CACGCCTGCN 240  
ATGGTGCTGC ACCCTGGGT GTCCCTGCCT TGGCCCTGCT CTGGTCACTT CAAACATNGT 300

N

301

SEQ ID NO:4727

LENGTH:295

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05610

SEQUENCE DESCRIPTION:

GATCATAAAA CAATAAAAGT AGTTTCTAA TGTGCTCAT AAAGTGGGAC TGAAAATCAT 60  
 TTCAAATCCA GGAGACAGTC CAAAAATGGT TATTGAGCAN TGGCCACATA TTGAATAAAA 120  
 AATTTTNATT TTCAGTCTGT GTTTGGGAA AACAGCATT CATTCATAG GTGGATAAGT 180  
 NCTAGAATAT TGGCTAANCA TATNGTCATT TGCTATAATG CATATGCATT NCAGAAGTTT 240  
 TCTNGCTCCT GANGTATNAT GGGGGGTTT CTAGCTCCN TATNGCNAAA ANTTN 295

SEQ ID NO:4728

LENGTH:99

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05612

SEQUENCE DESCRIPTION:

GATCACTTGA GCCAGAGGTT AAGTCTGCAG TGAGCTGTGN TTGTACCACT GCTCTCCAGC 60  
 ATGNGCAACA GAGCCGGACC CTGTCTCACC AAAGNCAAA 99

SEQ ID NO:4729

LENGTH:329

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05613

SEQUENCE DESCRIPTION:

GATCCATTGT CGGGAGCTTG TGGCACATCA CCTTTCTACT CTGCAGTCTT CCCTGCCTCT 60  
 NAATTCCGTT TATGTCTACC GTCCCCCTCA GCACACCCTG GTGACCTGTG ACAAAGGAGT 120  
 GTTCAGATTA CATCCCTCCT CTGTCCCAGG CCCAGACTTC TCCAAGGACA ACAGCAAGCC 180  
 AGAAGTGCCA GTCAGAGGTT NAGTAGCCTT TTACCATCAT CTCCAGNTG CCAGTGGGTG 240  
 CAAGCAGACC TCTACTAAAC GNAAAGTAGA GGGAAATGGN AGTGGATGAC TTNTGTGATG 300  
 GANTCAAACG GCTCTATAAT GGANGGTTN 329

SEQ ID NO:4730

LENGTH:140

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05614

SEQUENCE DESCRIPTION:

GATCCTGCCC TTCTCTGGGT NGGTGGGNGG TATAAGCACT GCCACCAGAA CTGTTGGGTG 60  
 CTAGCTTCAA AGCCCAACAC AAGAAATACT ACCAATTATG AAATTACAAC AACAANTNTA 120  
 AATGACATAA TTTTTGAAA 140

SEQ ID NO:4731

LENGTH:190

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05615

SEQUENCE DESCRIPTION:

GATCCATAGG ACTACGCAG CCCGGACTCA CCAACTTGCC ACATGTTCTA GGTTTCAGCA 60  
 ACAAGACTGC CAGGTGGTTG GGTTCTGCCT TTAGCCTGGA CCAAAGGGAA GTGAGGCCCA 120  
 AGGAGCTTAC CCAAGCTGTG GCAGCCGTCC CAGGCCACCC CCATGGAAGC AATAAAGCTC 180  
 TTCCCTGAAA 190

SEQ ID NO:4732

LENGTH:159

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05616

SEQUENCE DESCRIPTION:

GATCCCAGCC AGGAAGGCTG GGGGCCCTAC TGTGTGTCCT CTCTGGGCTG GGGTGGGGGN 60  
 AGGGAGGAGG TTCCGTCAGC AGCTGGCAGT AGCCCTCCTC TCTGGCTGCC CCACTGGCCA 120  
 CATCTCTGGC CTGCTAGATT AAAGCTGTAA AGACATAAA 159

SEQ ID NO:4733

LENGTH:295

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05618

SEQUENCE DESCRIPTION:

GATCACAGAC AAGCTGGGCC TGCATTCCCT TCGTCACCGT AACTGGTACA TTCAGGCCAN 60  
 CTGTGCCACC AGCGGGGACG GGCTGTACGA AGGCCTGGAC TGGCTGGCCA ATCAGCTCAA 120  
 AAACAAGAAG TGAAAGCCAG ACAGCCCTAA CAAAGCACCC CACCCACCCC TGACATACCT 180  
 ACTGTNACCC TGCCCCAGTC CTACCCCTTC CTCTCCATGC AAGTNTGGCC AGGGCCCTGG 240  
 GTATCATGTC CACATGCCCC GCAAGAGCCT TGCCTNCCNT TGCCTGCNCT GCTTN 295

SEQ ID NO:4734

LENGTH:295

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05619

SEQUENCE DESCRIPTION:

GATCCACCCA CCTNGGCCTC CCAAAGTGCT AGTATTATGG GCGTGAACCA CCATGCCCAG 60  
 CCGAAAAGCT TTTGAGGGGC TGACTTCAAT CCATGTAGGA AAGTAAATG GAAGGAAATT 120  
 GGGTGCAATTT CTAGGACTTT NCTAACATAT GTCTATAATA TAGTGTTTAG GTTCTTTTTT 180  
 TTTTCAGGAN TNCATTTGGA AATTCAAANC ANTTGGCAAN CTNGTATTA ATGTGTTAGG 240  
 TGCAGNGGN CATTGGTATT CTGGGCACCT TCCTAATATG GCTTTACAAT CTNNN 295

SEQ ID NO:4735

LENGTH:259

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05621

SEQUENCE DESCRIPTION:

GATCTCAGCA ACAGCTGGGT AATAAGACTA GCATAGCTCA AACTATCCTG CCAAACGCTC 60  
 TCATCTGATT TTNCCCTCCCT TCTCCCCCAA CCTCCAATCA CCCTGAGTCA CCTGTAAATN 120  
 CATTTGTNAT TCAAAGCGGA ATAACANGTT GTCCCTAGCA NNNCCGCTGA GCGCTTTATA 180  
 ATTTTNTGGT GTATTTTGT NAGTAGGTAG CAGAGGCGGA NGTATTTTNN GGTGTAATTC 240  
 TTGANATTTT CTGACAGGN 259

SEQ ID NO:4736

LENGTH:232

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05622

SEQUENCE DESCRIPTION:

GATCACTGCA TGTTATGATG GCTTGTAAGT GCGTTGTAA GACTTTTNTT TCAGTGTTTG 60  
 TNTCCAGTA TTTGAACCTA ATTTAAAGAA AAAGACGTTT CCAAGTTGTA TTTATTAAAT 120  
 GTNTTTNCC TTACCTTTTG TNCTGCTACT TTNCTAATCT CATTAGCTTA GCTGTGTTTG 180  
 TNCATAGGTT ATATNTGGTA ATAAATNTAT AGAGTGTTNG TTGTCATCGA AA 232

SEQ ID NO:4737

LENGTH:138

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05623

SEQUENCE DESCRIPTION:

GATCTGTAAG TTTATTTGCT CAATGTACGA CAGCTACATA ATGACTCACA TTCATGATAT 60  
 TCCATCACTG AGGAAACTGC TAAAGATGGT CCGTGTGTGA AATAATTCCT TAGAGAAACA 120  
 CGGAGCTGGA AAAATAAA 138

SEQ ID NO:4738

LENGTH:135

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05624

SEQUENCE DESCRIPTION:

GATCCAACCTG GACAACGTGT GGGATGGACC TGGAAACAAG CACCTCCCCA AACACATCAC 60  
 CACTCCCTAG GGCAGGGCCCT GTGCATGCTC TCGCATGACA TCTCCATGCT GGTTCCTGCA 120  
 TAGCATAAAT GGAAA 135

SEQ ID NO:4739

2153480

LENGTH:64

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05625

SEQUENCE DESCRIPTION:

GATCGATGTT AAACGTCACA GCAGTACTTT GCTCAATAAA GGTCATATTG GAAACATAGT 60  
CAAA 64

SEQ ID NO:4740

LENGTH:117

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05627

SEQUENCE DESCRIPTION:

GATCTGTGGT AGGGTATTGA GGGATGAGGG AGAAAAACGA CCTAATTCAN GTAGGACTNG 60  
CAACGGCTCC CACCCTCCCT GGGGACANGG NTAATAAAA ATTGACATCA CAAGAAA 117

SEQ ID NO:4741

LENGTH:244

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05628

SEQUENCE DESCRIPTION:

GATCAGAAGG GCTGCGTGTA GCACCCTTAT GGTCTTGCGA AACACACCAA GAAACCCGAC 60  
GGCTTCCATA TTTNCTGACC CTACAAACAG GTGCCTAATA CTGATGTGGA GAAAGCTCAA 120  
GAGGGAATCA TCTGGCCTGA GCCTACCATG AGGCTGTTTG TGGTNTGCGC AGAAAAGCAA 180  
CAACTCGCTC CCCTTCCCAT GTATCAGTGA AAACCATTAT GCAAATAAAG AGCTGGGCCC 240  
CAAA 244

SEQ ID NO:4742

LENGTH:209

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05629

SEQUENCE DESCRIPTION:

GATCTTTTTT CCTCCTTCTG TTTATNTTTT TGTTTGTTTT ATTTATAGTC TGATTAAAA 60  
CAATCAGATT CAAGTTGGTT AATTTTAGTT ATGTAACAAC CTGACATGAT GGNGGAAAAC 120  
AACCTTTAAA GGGATTGTNT CTATGGTTTG ATTCACTTAG AAATTTTATT TNCTTATAAC 180  
TTAAGTGCAA TNGAANGNGT TTTNCAAA 209

SEQ ID NO:4743

LENGTH:265

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05630

01463

## SEQUENCE DESCRIPTION:

GATCATATAC TGTATATATA AAANNNTTGA GATGGTAGAA ACATGTATGA NTGTACTAAG 60  
 TAGTATTCCA CTGTACTCAT TCATAAGGTA GGTTTTCTTA CAAAACCTCAC ACCAGGTACT 120  
 TAAAGATGTG CTCTGCTTTT TTCCAACCTAC GGAGTGTAC TGCTTTCTAG GTCAGTCCCT 180  
 GCAGACTCTT CTCAACTCTT TCCCTATAGG AACTTACTC CGCGTCCTGC CCCCACCTCC 240  
 TAAATAAATA ANGGAATCGG CGAAA 265

SEQ ID NO:4744

LENGTH:177

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05631

## SEQUENCE DESCRIPTION:

GATCCCTAAC ATACTGTACT ACTTGCTTNT ACAATGTGTT AGCAGAAACC AGTGGGTTAT 60  
 AATGTAGAAT GATGTGCTTT CTGCCCAAGT GGTAATTCAT CTNGGTTTGC TATGTTAAAA 120  
 CTGTAAATAC AACAGAACAT TAATAAATAT CTCTGGTGTA GCACCTTTTA CTGTAAA 177

SEQ ID NO:4745

LENGTH:377

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05632

## SEQUENCE DESCRIPTION:

GATCAGCCGA AGAAAGCAGA AGCTCTGGAG GCTGCCATCG AGAACCTCAA TNAAGCCAAG 60  
 AACTATTTTG CAAAGNTTGA CTGCAAAGAG CGCATCAGGG NCGTCGTTTA CTTCCAGGCC 120  
 AGACTCTACC ATACCCTGGG GAAGACCCAG GAGAGGAACC GGTGTGCGAT GCTCTTCCGG 180  
 CAGCTGCATC AGGAGCTGCC CTCTCATGGG GTACCCTTGA TAAACCATCT CTAGAGAGGA 240  
 CATCCCTGCT GGGCTGCTGT GCAGAGTATA AGATTTTGA CTTGTTTCATG TCCCCTCTCT 300  
 CCCTATAAGG GGTGTATTTG TGACACCCTA TCTNGTCANT AAACAGCATT TCTGATTAAA 360  
 AANAANAAAA AAANAAN 377

SEQ ID NO:4746

LENGTH:89

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05634

## SEQUENCE DESCRIPTION:

GATCCTGAAG TTTTGGTCA ATAGGCTCTG TCTTCGTGAG AGACGGGCTG AGAGTCAGAA 60  
 ATAAATCAAC CATTTNTGGT TTATTCAAA 89

SEQ ID NO:4747

LENGTH:55

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05635

## SEQUENCE DESCRIPTION:

GATCTTTCTT CTCCCAGCTA AGAGTTCTTC AATAAATTTA AGAAATACCT GGAAA 55

SEQ ID NO:4748

LENGTH:244

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05636

## SEQUENCE DESCRIPTION:

GATCAGCAGG GACCAAACCA TTGCCACATC CCAAGGNTGA ACAAGCATGG CTGAGCACCA 60  
 GAGTNTGCAC CAAGTNTGAN TTTAGGCCTG CCAAGTGGAT TTACACCCAG CACGTCCCAA 120  
 ATTTGGGTGA GTGCATGCCA ACCCTGTAAA CATGTAGGGG TGGACAGGTC AACAGACAAG 180  
 GTGACCCAG CNTCCGGCA AACTTGATTA ACACATACTG GNCACAGCAA TTANNNNGAN 240  
 NTGN 244

SEQ ID NO:4749

LENGTH:184

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05637

## SEQUENCE DESCRIPTION:

GATCGCAGGG CCNTAGGTGC CTGGACCCAG GGTGTGCCAG CCCGTCTCTN TGCAGTCCCT 60  
 GGAAGGGCGC TGAGAAAGGC ACCAGCTCCT TGGACCCAC CTCCCATGCT CTCACTCTCA 120  
 TCCCCGTTCT CTTGTCCACA CAGCTCTTCC AATAAAGGTG TTTCTNTTCC TCCTTCTCCT 180  
 CAAA 184

SEQ ID NO:4750

LENGTH:282

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05639

## SEQUENCE DESCRIPTION:

GATCCTAGTT GCCTTGTGT ATATTTACTG CCTGCTTGAG TGTTTCTATG TGTGGGTTTT 60  
 CCCTGTATCT TGTAGAAATG TTGGGGTGTT TTCCTCTGCC ATATGGCTCG TGGCCTGCCA 120  
 GCCAACTATT TCAGNTGTGT TTNACCTTCA TTTTGTATGA GGTGATTAA ANNTNGTTTC 180  
 ACTTTGTGTA GTGAATTCCA CAGTAGTTTT CTGANTGTNG TTAAAAATGA CTTAACATAT 240  
 TACACAGATA TTCAATAAAA ANGTTTTATT TCCTGTTGNA AA 282

SEQ ID NO:4751

LENGTH:65

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05640

## SEQUENCE DESCRIPTION:

GATCCCATTG TGTATAAGTT AATATGTGAT AACTATTGAA TCTTGTACAA AAACAAAAAT 60



TGAAA

65

SEQ ID NO:4752

LENGTH:159

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05642

SEQUENCE DESCRIPTION:

GATCCATCCG CGGTGTTGCC TGAATCAACC GCTCATCCCT CGGATTGCTG AGCAGGATTC 60  
ACAGGGTGGG GGCACCACAA TGTATCTGTG TCCCCAGAAA GAATACTTGC AGTTTCCAGT 120  
TGGACACTTT ATCAATAAAA TCACTATAAA CATCTGAAA 159

SEQ ID NO:4753

LENGTH:352

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05643

SEQUENCE DESCRIPTION:

GATCTTGAGT TGCAGTCCAC AGCATTACACA TTCTCAGGAT AAACATGCTT GTCTCCATAT 60  
ATACTATCTG TGCCTGTAAT GAATGAAAAA TCCATCCACT CTGCTGCCAT TCACAGCCTA 120  
ATCTTCTGGA GTAGTCCAAA CAATGTTTGG AAAAACATGG GACTGTATGT CATTACTATG 180  
ACTGATAGCA GAATAATAAT GCATCTNACT TCTATATAGN GATAGNCTTA CATAGGTTAC 240  
CCTTGANATT CATTAGTNTG TCATANGTTT TAGGAAAGGT AGGACCCGGN AAGNNGTTCT 300  
ANTTAGTTGT CTAATNTTT TNCAGTGNGC CAAGNNATTC ACCATGANAN AN 352

SEQ ID NO:4754

LENGTH:297

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05644

SEQUENCE DESCRIPTION:

GATCGGCTCA AAGCCTGTCA GCAGAGGGAA GGACAGAAGT ACCAGCAGAA CTGTATCAAG 60  
GAAGTGGAGC AGTTCACCCA GGTGGCCAAG GCCTACCAGG ACCGCTATCA GGACCTGGGG 120  
GCCTACAGTT CTGCCAGGAA GTGCCTGGCC AAACAGAGGC AGAGGATGCT GCAAGAGAGA 180  
AAAGCTGCAA AAGAGGCCGN CGCTGCCACC TNCTGAGGCA GCTGTGGGTG CCCCTGCTGT 240  
GTGGCTCTGT ATNACTTGTT TGCTTGAAAT NTAAGAGGCC TNGCAAACCC TGGGAAA 297

SEQ ID NO:4755

LENGTH:126

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05645

SEQUENCE DESCRIPTION:

GATCCCAGGC CTGTGGCTAG CAGCACTGGG GACAGGAATG GCTGGTCCCT TGAGGAGGTC 60  
GTGACAGGCT CAGCCTNGTN GTCTNGAGGG GACTCGGAAA TAAATTGTAG CAGCTTTCCT 120

GCCAAA

126

SEQ ID NO:4756

LENGTH:317

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05646

SEQUENCE DESCRIPTION:

GATCTAAAA GTCAAAAATC TGAAATTTAA TAATATGAGA CTTACACTGA NTATAATGTT 60  
 CATTTAGAAG TTGCTGTGGT CCACTTCATT TATANGGAAC AAATATTTTT ACAGTACACT 120  
 ATAGCAACAG CAAAAGCCCT CTCTCACCCCT GATAGGAATG GGTTTGCTGG GTGTCTAGAA 180  
 GTTAGATTCC TGCTGAATAG ANTTAGCCAT CCTTAAAAGA TNTTAATCCA ATACTGAACT 240  
 GGTTTATAAA ANGCTTTCTC TATTGTANTG NACTGTAAGT AGTGAAATTC TGTATATACT 300  
 GCTATTNGCT GNCTGTN 317

SEQ ID NO:4757

LENGTH:228

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05647

SEQUENCE DESCRIPTION:

GATCAGTAAT CCTATTAAAG AAGCGGAAGA AGATACCTCA GAAAGGTCGG AAGAAAAAAG 60  
 GTTTTCGGAG GCGGCGGTGA TTATGGGTGT ACATATTTGT ATATTTTTTG TCATCCTGAG 120  
 ATACTTCTAA TTTCATTGTA TATAGGTGGT TTTCCCTGGA ATTCATTAAT TGTTTGCTTT 180  
 GGACATGTGG AAAGAGCCTT ACTAATAAAA TTGATTTTAC TTATGAAA 228

SEQ ID NO:4758

LENGTH:312

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05648

SEQUENCE DESCRIPTION:

GATCAGTTCT GAAACAGTTT CTTTCTGAAA CAGAGAAAAT GTCCCTGAA GACAGAGCAA 60  
 AATGCTTTGA AAAGAATGAG GCCATACAGG CAGCCCATGA TGCCGTGGCA CAGGAAGGCC 120  
 AATGTCGGGT AGATGACAAG GTGAATTTCC ATTTTATTCT GTTTAACAAC GTGGATGGCC 180  
 ACCTCTATGA ACTTGATGGA CGAATGCCTT TTCCGGTGAA CCATGGCGCC AGTTCAGAGG 240  
 ACACCCTGCT GAAGGACGCT GCCAAGGTCT GCAGAGAATT CACCGAGCGT GAGCAAGGAG 300  
 AAGTCGCTT TN 312

SEQ ID NO:4759

LENGTH:95

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05649

SEQUENCE DESCRIPTION:

GATCAAGGTA AGAAACATTG TAAAAAATAA TTACAAAAGT GCTATTTGTT TCCTAAAAAC 60  
AGTGATTCTT ATTAATAAGG TGTCAGANCT GGAAA 95

SEQ ID NO:4760

LENGTH:336

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05650

SEQUENCE DESCRIPTION:

GATCCTNTTT CCANTTNAAG GGAACGTAA GCTTTTATCT TTTAACCAAC TGAACAATAC 60  
ACCAAAAGCA GCCTAGGGAT GAGCATTCTT TTGAAAGCAA TTAGGTTATT CACCTGGTAT 120  
TAAACTATT TACTGTATAA AAATCTGTGA CTTTATGAAG TTGATTNTA AAGGCAGCAT 180  
CANAACTGA NANGGAAGGG AAANANTAGG CAGCTTCTCT GCATTGTTT GGAGCTCCCC 240  
AAANCAGGGT GCCATGGGGN AGTGGGCATC AAGNCCGGGC TGCCCTTTTC NGGTCANCT 300  
GTGGCAGTTC AGAGTCANGG TTTTCCTNC GCTGGN 336

SEQ ID NO:4761

LENGTH:310

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05651

SEQUENCE DESCRIPTION:

GATCCAAATT CCCAGGTCGG CGCCTGCATC GTGAATTCAG AAAACAAGAT TGTCGGGATT 60  
GGGTACAATG GGATGCCAAA TGGGTGCAGT GATGACGTGT TGCCTTGGAG AAGGACAGCA 120  
GAGAATAAGC TGGACACCAA ATACCCGTAC GTGTGCCATG CGGAGCTGAA TGCCATCATG 180  
AACAAAAATT CGACCGATGT GAAAGGCTGT AGTATGTATG TTGCCTTGTT CCCTTGAAT 240  
GAATGCGCTA AGCTCATCAT CCAGGCAGGT ATAAAAGAAG TGATTTTCAT GTCTNGATAA 300  
ATACCATNTN 310

SEQ ID NO:4762

LENGTH:364

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05652

SEQUENCE DESCRIPTION:

GATCCCCTCC AAGGAGCACC CATATNACGC CGCCAAGGAC TCCATCCTGC GCAGGGCCAG 60  
GGGCATGTTT ACTGCCGAAG ACCTGCGCTA GGGGACTCCT CATAGCCCTC AGCCCTTCCC 120  
TCGTTTCCAG GCCTCTCCCC AGGCTTGCCA TCAGCCTTCT TTACTTTTTC AGCCTCTGAT 180  
TTCCAATTCC CTGCTNCNNN CCACTCCATT AAGAGGCTAG GTGAGGCGCT TCTAGGTTGC 240  
TGGGGCTCTG CTGGTTAAGG AACAGGAAGC CTGACCATCT CCCTCCACTA CCTCTTCCCT 300  
GTGCTGTTAC ACAGTGTATC TGTTGATGTT AAATTAAAGT CATATTCTTG CTTCTTCCG 360  
NAAA 364

SEQ ID NO:4763

LENGTH:333

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05653

SEQUENCE DESCRIPTION:

GATCGTCTGG AAGCAGCAGA GATGTACAGA AAAGCTGCTT GGGAAAGCGTA TTTGAGTAGA 60  
 CTTGGTGTTT GAGTGCTTCA GATACATTTT TCAGATACAA TNTGAAGACA TTGAAGATAT 120  
 GTGGTCCTCC TGAAAGTCAC TGGCTGGAAA TAATCCAATN ATTCTGCTT GGATTCTTCC 180  
 ACAGGGCCTG TGTAAGAATG GGTCTGGAG TTCTCATGGG NCTTTTAGGA AATATTGAGT 240  
 AATTTGGTAA NTCACCGNAT TGGTTACTAT ANATAAGGTC CCANTNCNTT AAGGCTTGAT 300  
 AAGGTGAATN GNGGTGNGNN NTNTGGGGGG AGN 333

SEQ ID NO:4764

LENGTH:131

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05654

SEQUENCE DESCRIPTION:

GATCCTCCAA AATTCAAACA AGGAAAAATC TCTCCCAATC TCTCCTTCC TCCATCCCTT 60  
 TTCTTTACTT CTCATCCCAT ATATAATATT ATATAANGCA TACGTAATAA AAGACATTCA 120  
 CTATTATTAA A 131

SEQ ID NO:4765

LENGTH:271

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05655

SEQUENCE DESCRIPTION:

GATCTCTTTT GCTATGGCTC ACATTATTTT CATAAAGTTG CTGGCCAGCT TTTACCTCTT 60  
 GCATATAATC TGTTGAAGAG GAATCTGTTT GCAGAAATTA TTGAGGAGCA TCTGGCAAAC 120  
 AGAAGTCAAG AGAACATAGA CCAACTTGCT GCATGAGTAA GGTGGCTTTG NTTGGTGAC 180  
 AGTATTTCAA AGGACTAGTA TTAANCTTGT GATTNNGGTT TTGTTTTTAA GGGGTACANN 240  
 NNGTAAGCCA TTNCTTAAN AACCGTTGAA A 271

SEQ ID NO:4766

LENGTH:87

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05656

SEQUENCE DESCRIPTION:

GATCTTTCTC TTGAGTCATT TTATTTTAT CATGGACTAG TGGTGCTCC GTGTCCACCC 60  
 CAATAAAAGG GTCTTCCTA CTTGAAA 87

SEQ ID NO:4767

LENGTH:293

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05657

SEQUENCE DESCRIPTION:

GATCTGGGCA ATTTTGGCCT TGACTCTTC CTGGCTCCAG AGCTCAAGCT TAGANGCCAG 60  
 CCCTGCTATT TCCAGCCTCC TGAAGGCTCA GCACGGTGAG GCCTGACATC CTGGGGAAGG 120  
 GCAACAGGGA GACCTACAGG ATGNTGGCTG CTTGCAGACT GGTCAATGGG GGATGACGGT 180  
 GGGGAGGTTG NCAGATGTGA GACTTNNGTA GCATTTNGTA CACATGGCCC TGTAGTTGTC 240  
 CTTTNGAAGA ACATCANTNA AAATATANGG GTNNTTAAAT TNTGGGNAAA AAN 293

SEQ ID NO:4768

LENGTH:313

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05658

SEQUENCE DESCRIPTION:

GATCTTGCTA GGAAGGCCA CCTTGATGC CGTGCTGGTC AGTGCCCTCG TGCTGATGGC 60  
 CATGGTCAAG AGAAAGGATT CCAGAGGCTA GCTCCAAAAC CATCCAGGT CATTCTTCAT 120  
 CCTCACCCAG GATTCTCCTG TACCTGCTCC CAATCTGTGT TCCTAAAAGT GATTCTNACT 180  
 CTGCTTCTCA TCTCCTACTT ACATGAATAC TTNINTCNGT TTTTNTGTTT CCCTGAAGAT 240  
 TGAGCTCCCA ACCCCCAAGT ACGAAATAGG CTAAACCAAT AAAAAANTGT GTGGTTGGGG 300  
 CCTGGGGNGC AAA 313

SEQ ID NO:4769

LENGTH:279

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05659

SEQUENCE DESCRIPTION:

GATCCCTCA TCACCCCTGT GCCCACTTCG GAGAACCNT TCCGGGAGAA GAAGTTCTTC 60  
 TGTGCTCTCC TCTGAGCTCC CCTGTCCCTT CTCACAACTN CTCCCTTTTC CCTCTCCTGG 120  
 GCCCTTCCTT AGGTCAGTAA TTGTTGTGAG CCCCTTAGGC TCCTTGCATC CCATCCCTAA 180  
 CCCTTGCCCTG ACCATGTGAG GTTATCTGAA GCACAAGNNC CACCCTNANG NNGNNTNTCG 240  
 ACCCGATTTC CTACCACCTT TTTTGGGCCG ANCCNAAGN 279

SEQ ID NO:4770

LENGTH:203

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05660

SEQUENCE DESCRIPTION:

GATCCATGTA ATCTGACGTC ATCTGTCTC GAAGTCTCTT TTTTGGCCC AGGCCTTGAA 60  
 GAATACACTG TGACTTAAGA AGCCTTACCA CGCAGTAACT AAAGCTTTAG GATGACTGTN 120  
 TTCGAGGAGT GCCGTGTGTT GCATGCAGCT ACCCGTAGGA AGACTTCGCG CATATCACTA 180  
 ATAAACCTGA AGTCGTGATG AAA 203

SEQ ID NO:4771

LENGTH:112

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05661

SEQUENCE DESCRIPTION:

GATCGTTGTG CTTTNTTNC TGTGTTGGTT GCCAGTTTAT AGTGCCAACA CGTGCGCGGC 60  
CTTTAATGGC CCGNGTGCAC ACCNAGCACT CTCGGGTGCT CCNATCTCCT TN 112

SEQ ID NO:4772

LENGTH:291

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05662

SEQUENCE DESCRIPTION:

GATCTGGGAG GTGGAAGCCA GGCCAGAGGA CTTGGGGAAA ATNAGATGGA GGAAGGAAAA 60  
AGGGAGAAGC TGAGCCACAG CTTAACTCCT ACAGAGTGAA ATNAAAACGG GCTGAAAATA 120  
CCACCCAGG AGAGGACCTC GNCCCANGCA AGCCAGTGAG CAGCCCTGCC AGACTACTGN 180  
CAGNCTGNGA AACCAGANG CTGGGTAGTC ATGTGGGGCT TGCCTTCTTT TGCCAAAACG 240  
NCTGGGGGAA NCCAAAAATN GGGCCCCACC CTTNNTGTTT CTTTCCTTNG N 291

SEQ ID NO:4773

LENGTH:133

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05665

SEQUENCE DESCRIPTION:

GATCCCAGGC CTNTGGCTAG CAGCACTGAG GACAAGGAAA TGGNTGGTCC CCTTGAGTAG 60  
GTCGTTACAA GGCTCAATGC CTGGTNGTCT TGGAGGGTAC TCGGAAATAA ATTGTAGCAG 120  
CTTTCCTGCC AAA 133

SEQ ID NO:4774

LENGTH:316

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05667

SEQUENCE DESCRIPTION:

GATCACCCAG CAGGAGTCGT GGCAGAACGG AGCATCAGCC AGACCCTGTT GTGGGCGTTG 60  
TCATCAAGGG AGCTTGAATG GAGGGTCTGG TGTCAGATAC AGCCGACTCC AGCCCCAGCT 120  
CATCCCCAT GATGTGTGT GACCCACTGG GCACTCTGGT GAGGGAGCTT TCCAGACATC 180  
AACAGCCAC TCTGTTCCC TTTCTGAGTC CCCTGTCCAG CACTGCCTAG TGTGGAGGG 240  
TAGACCAAGG CTGTGCATGA TTCACCCNT CTTCCATCC TGGAGCTGGC AGTGAATAAA 300  
AGCCCGTATT TACAAA 316

SEQ ID NO:4775

LENGTH:113

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05668

SEQUENCE DESCRIPTION:

GATCTCCAGA GACCCAAGTT TAGGTTCTCA TAGTGTATTT GAAGTAGTTA TACTCCTGGC 60  
TTAAGTAGTT TAGTGCCTGG GAGAATCCAT TACTGAAAAG CATTTAACTT AAA 113

SEQ ID NO:4776

LENGTH:157

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05669

SEQUENCE DESCRIPTION:

GATCTAACAA AAATGAAACA TGAAATGCAG TAGCAACCAC TAAAAAAAAA AATTCAAGGN 60  
CATCTAACTN TTTCTCTCAC TTTNGCCCTT TGTTTATCCT TCCCTGTGAT TAGATAANCA 120  
NAATAAAAAAN CAAAATGCTG TATTCTCTN CTTACGN 157

SEQ ID NO:4777

LENGTH:214

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05671

SEQUENCE DESCRIPTION:

GATCACTTAG AGAAACAGGC CGTTAGGAAT CCATTCTCAC TGTGTTGCT CTAAACAAAA 60  
CAGTGGTAGG TTANTGTGTT CAGAAAGTCGC TGTCCTTACT ACTNTGCGG AAGTATGGAA 120  
GTCACANCTA CACAGNGANT TCTCAGCCTA CAAATTGTGN CTATACATNT CTAAGCCTTG 180  
TTTGCAGNAT AAACAGGGCA TTTNGCAAAC TAAA 214

SEQ ID NO:4778

LENGTH:141

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05673

SEQUENCE DESCRIPTION:

GATCAGTTN CAGCAGCAAG TACAAAAGGA GAAGAGGAAC ATCCGTTGAA TNAGTGTGTT 60  
TTGTACATAA CTTAGATAC TTGTNAACAT GCCTTATATT TGTCCAACAA CTGTCAGANT 120  
AAAGAACATT CTAAATNAA A 141

SEQ ID NO:4779

LENGTH:154

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05674

SEQUENCE DESCRIPTION:

GATCTTGTGA AAACACNGTN TTNTCGACTA AAAATTCCAC TNTCTTCATC TNGTTGTGAA 60  
 GCTAAAAAGA GGGACTGTTA AATACAATGT ATGATACCAT GGCAAAAATC TTTCTGAAT 120  
 TGTCTTTNGT AAAAGTATTA TTGAATTTN CAAN 154

SEQ ID NO:4780

LENGTH:236

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05676

SEQUENCE DESCRIPTION:

GATCAAAATA GCTATTGCTA CAACATTTTC GAAAACAAAG TTGGGGCTGT ATTTCTTTAA 60  
 AAAGATAAGC CTCTAAAAAT GCTTGGCAAA AAAAATATAG TGTTAAAATA GGCCAGTGAT 120  
 ATTAATGAGA AAATGAAAGT ATGTATCAGG ANTAANGTGA TATTGCATAG GNGTATTGTA 180  
 TTTTATGAA TTTNATGCCA GTTGTTTACA TGTACTATAT ATGTNAANTT ANNNNN 236

SEQ ID NO:4781

LENGTH:168

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05679

SEQUENCE DESCRIPTION:

GATCTCAGTT GCACGTGCAA ACAAATCCAA ATTCGAACAT TCTTAGGAGG TTTTNTTAA 60  
 GGCATGACAG ATGATNTAAA CAAATAAATA GCATGCAACA AAANGTCTTT ATTGNAAGAA 120  
 GTGGAAAGTTA TCTTAATGCC ACGGNTCACC ANCAATTNAA AAGTANAN 168

SEQ ID NO:4782

LENGTH:79

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05680

SEQUENCE DESCRIPTION:

GATCAGTGAA CACTAACATT TTGGGGACAA CTTAGTCAAT TGGTTTCCT TACAACAAAA 60  
 TAAAGTAAAA TGTAGCAAA 79

SEQ ID NO:4783

LENGTH:107

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05681

SEQUENCE DESCRIPTION:

GATCACCATT CAATTTGAGT TTCCAGGGGG AAGTGCATGT ATAATGNAAT GATAATGGAC 60  
 TTCAATGANG GATGTCATCA ATNATGNACA TATAGATNGC CTTATAN 107

SEQ ID NO:4784

LENGTH:319



TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05682

SEQUENCE DESCRIPTION:

GATCTAATAA GACACGTAAT AGATTAGAAG TAGGGAAATT AATGAAAAAG CAGAATTAAG 60  
GATGACTTCT CACTGGCTTG AAATNCTAAA TGGATGACGG TGCTGTTTAG TGAGTTGGGG 120  
AAGACTGGGC GTGGTGATGG GTGTAGAAAT TGAGAAAGGA AAATCAAGAN TTCCAGAAC 180  
TTTCAGAGCA ATGTAAATA CTTTCCTTGA TAGTGGGTCA GTCATCATTT ATAAGTCAT 240  
TTCTAAAAAT NTTGCTTAAT TTTNTTTTGG AGCTTTGTAT AAGTGAATT TTGTGTGTAC 300  
TGATTATNTT GCTCAATAN 319

SEQ ID NO:4785

LENGTH:78

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05683

SEQUENCE DESCRIPTION:

GATCTTTTCAT CTGTGATTCT TATAAGAGCT TTGTCTTCAG AAAAATAAA AATAAAAGGC 60  
ATTGACTTAA ACAGCAAA 78

SEQ ID NO:4786

LENGTH:51

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05684

SEQUENCE DESCRIPTION:

GATCAGTTGT AAGTTCATTT CTTTACAAAT AAAAGCCTCT TCCATTTGAA A 51

SEQ ID NO:4787

LENGTH:288

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05685

SEQUENCE DESCRIPTION:

GATCTTTTCC ATCTGAGGGT ACAGGAAGTA CCAGGACCTG TTTCAGTTTT TNAATCCTGC 60  
AAGCACATTC CAAGACTGGC CTGAAACTGC ATGAGCAACA TCACTCGAAA TAATTTTTTT 120  
TTTCAAANGC ACCTTAACAA CCANTTGCGA TGCTGTCCTG TTCCTTTTTA CTCACACCCT 180  
TCTNTCCTTT CTCGTCCNA TGCTCCACCA NCTCAGTGCT NTGTGCTGTA TCGGTGTGCT 240  
CTCTGTTNTN GTATACTCAA TATANGTGNA ATAACTGGT GTTTTGTN 288

SEQ ID NO:4788

LENGTH:278

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05686

## SEQUENCE DESCRIPTION:

GATCATGCAT GCAGTCATGT CTCCAGTATT CTGTGAAAAG CCAGGATACG TTAGGATGTG 60  
 AGTTTAGAAA CTGAGTCCAT TCGGTGCATG GAAATNCACC GCGGAGTTAC ACAANGCTCC 120  
 TCACTGTAGT CCAGGCGATT GGTNGGCCGC CACCACCTG CGGGCTTCAC AGGGACGCGT 180  
 GCTTGTNCTC CAAGNCCCGN AACCTTACT GTGCACACAN CATCNNACAC ACCTTTGTTT 240  
 TTGAAATTAA AATGTTNATT AGTTNAAAAA AGGGNGGN 278

SEQ ID NO:4789

LENGTH:337

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05687

## SEQUENCE DESCRIPTION:

GATCCCGGTG TGTGGCCAG CTTGTNCAGG CCCTGGNATG CTGCATCTCC AGGCAACTAT 60  
 GCACTTTCCC GGGGAGAGAA CCAGTATGAG AAGTGGGGC AGGGCACACA TTCATCTTG 120  
 TAGGAAGGTC TGGCCTGGGG TCGGGTGAAG GAGGGCCCAG GTCAGTNCCT GGGTCCCAGT 180  
 GACCTGCTTT GCCATTNTCC TGGTGCCGNT GCTGCTCCCT GTTCTGGAG CTGGATGTTN 240  
 CCNAGCTGGC AGTTGAGCTG CCTGAGCCAA TNTAGTCTAG NCTTGGTAA CTTGNGTGAA 300  
 CCATAATAAN GGGGAACCAT TNTNGGCCTT GTGNAAA 337

SEQ ID NO:4790

LENGTH:251

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05688

## SEQUENCE DESCRIPTION:

GATCACAAGG CTGCCTGCCT CAGTCTTGGA GTCCTGTTGG GTGAATNAGG CAGATGGGAA 60  
 ANAGCCTCAC CAGCAGCTGC TTTTGAGCA GGGGTCCAAG GAAGAGAGGG TGCCCTCGAC 120  
 ATCAAAGTGC CTGGATTTT CTACCACCCT GTTACATCAT AACAACTCT GAAACACACA 180  
 CCAGCCCTGA GTTCTGGGCT CATTTGAAGC CTGGAATAGC AATAAATCTT TTAACTTGC 240  
 GGACAGTTAA A 251

SEQ ID NO:4791

LENGTH:316

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05689

## SEQUENCE DESCRIPTION:

GATCGAAGAT GTACAATGTT AAATGTNCAT ACCAGTTAAA CTGCACTTTC CCAAGGGGNC 60  
 AGCTGGNATC TACTTGAAAT GGGNATCAAG AGACCACCAA ATGTTTACAG TTTCTGTGGC 120  
 CCGTTTAAGT GTAAATGCA GAAGTGGCTC TGTCCCCCA GAGTTAAGGN TTTGCTACAC 180  
 TGGTCTCTG GAAGCATTTA NGTAGAAGAA AAGGCTTATA GTCAGNNTCA CTTTGTAGTAA 240  
 TCGTCTNCTG GTCCTTGNC TTTCTGGTT CTGTNANTGC TTGTAACCAA TGANTGATGG 300  
 TGTTGCCAAT CTNAGN 316

SEQ ID NO:4792

LENGTH:346

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05690

SEQUENCE DESCRIPTION:

GATCAGTCCT GTCATCCAGC TGCAGCCAC CTTACACCC ATGCGGGTCG CACTNGCTGG 60  
CACATTCCAC TACTACAGCT GCGAGAGAGC CAAAAAGGCC ATGGGCTACC AGCCACTAGT 120  
GACCATGGAT GATGCTATGG AGAGGACCGT GCAGAGCTTT NGCCACCTGC GGAGGGTCAA 180  
GTGAGGGNCA CTNNGGGCTG GGCTCTCTNG ACACGTTGCT CAGCCAGTCA CTNCTTCCC 240  
TGNTGGATTG ATGAGNTAAC ATCCTTTNGA ATGGAGTTN GCTCTTTGCC TGTGACTCCT 300  
TCTGCTAGGC AGNGGAGCGC ACCNTACTNT TTNCGTNGCG GTGNGN 346

SEQ ID NO:4793

LENGTH:187

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05692

SEQUENCE DESCRIPTION:

GATCCCAGGG ACTCATCCTG TGACTTTGTA ACCACACTCA TTCCTTTCAA ACACAGAGGA 60  
GGAATTATTG CTTACTCTGA CTTTATTCAA ATCTAGTTAT GTATTGGCCT AAATTATTG 120  
TGCAAAATTT GAANNNNNT TTNATTAAA TATTAGAAAT AGCAGAAAGT CATGGNGTTT 180  
TTAANAN 187

SEQ ID NO:4794

LENGTH:228

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05693

SEQUENCE DESCRIPTION:

GATCTCAAGA GCCCTGTCAG TAGAGTAGAA GTCTCTTCCA GTTGCTTTG CCCTTCTTTC 60  
TACCCTGCTG GGGAAAGTAC AACCTGAATA CCCTTTTCTN ACCAAAGAGA AGCAAAATCT 120  
ACCAGGTCAG AATAGTGCCA CTAACGGTTG AGTTTGGACT GCTTGGAACT GGAATCCTTT 180  
CAGCAAGACT TCTCTTTGCC TCAAATAAAA AGTGCTTTTG TGAGCAAA 228

SEQ ID NO:4795

LENGTH:230

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05694

SEQUENCE DESCRIPTION:

GATCTGCTTA AAGTTTAACT TTTTATACCT ATCTGAGTGA ATTACAGACA ACCTATCATT 60  
NATNCTGCTN CGAGGGTCCC CAGGGCCCTT GTACAACCGA CAGNTCTTAC TTTTAAATGC 120  
AATCTCTTGT CTACATACAT NATTTTCTTA ATNNGTTAGC TATTTATAGA AAGCTGCAAT 180  
AGAACTGTNT CAACTGTATA ACTATTTACN ATTCANAATA NAANTATTTN 230

SEQ ID NO:4796

LENGTH:367

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05695

SEQUENCE DESCRIPTION:

GATCTCATTT GCTGAATGAT TGATTAAAGA GTAAAATTNG CCACTGCGTG CTTTTTGTAT 60  
AGTAACCGGT TTTGTTGCAC TNGTCTGTGG CTGAAACACT TACCTGCAGT GGAANGCCGA 120  
GCAAGGAGGA GGTAAACATT GGAGATGTTT GTGAAAATAT TACTCTTGCT GTGAGGTTTT 180  
AGTTTGT TTTT GAATGAGAAA GGGGCTAAGT AACTTAATCC ATCTCAATGT AGTGT TTTTAA 240  
TAAAAANGGN GCCTAATATT TGAAATGGGG TCTCAGGNCA TGNTCTACAA ATNTGGGGNA 300  
NCTATTTTNN ATGCCCCGTG TAATTTTNCA CCATTTTGNN NATGAGTTNA TTGTAGGGGT 360  
CANNATN 367

SEQ ID NO:4797

LENGTH:88

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05696

SEQUENCE DESCRIPTION:

GATCTTTTCT CAGAGCGTCT CCATGCTATG GTTGCAATTC CGTTTTCTAT GAATNAATTT 60  
GCATTCAATA AACAACCAGA CTCAGAAA 88

SEQ ID NO:4798

LENGTH:239

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05697

SEQUENCE DESCRIPTION:

GATCACAAGT GCAGCATTCC TTAATTCCTT CTGCTATATG TCACACAGTT GTTATTTGGA 60  
GAACCAAGTA TGTATTGCAT GAAAACATTA TGACTTTTTT CTCTTAGTTT AAATAAACTC 120  
CAAGGTAAGT GGACTTCTAA AGCACCTTTC TGTTTGCCTG ATATCTACTT TAGCAATAAT 180  
TTTTTTTACA ACCCTCTGAC TCAACAAAGT AAATAAAAGT ATATTTTATC ACTATTAAA 239

SEQ ID NO:4799

LENGTH:148

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05701

SEQUENCE DESCRIPTION:

GATCTGGCCT TATGCCCAGG CCTGGGCCCT CAGAAAGCCC GGAGGCTGTT TGATGTCCTG 60  
CAGGAGCCCT TCTTGAAAGT ACCCTGATGA CCCCAGCTGN CAAGGAAACC CCCAGTGTA 120  
TANTAAATCG TCCTCCAGG CCAGGAAA 148

SEQ ID NO:4800

LENGTH:109

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05704

SEQUENCE DESCRIPTION:

GATCCTCAAC AGACACCTTC CTTGACTGAA AGTTTTAATC GTGATGCAGA GNCAGTCAGT 60  
NATNTNCCGC CATCCACAGG AAATTCAGCA TCTTTATCTC TNCCACTTN 109

SEQ ID NO:4801

LENGTH:147

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05707

SEQUENCE DESCRIPTION:

GATCAATTCA ATTAGATTAA AATNAAGAAC CTTGGGGCAG AGTTTGGGTT TTGTAAAATN 60  
AAAAGAGTTC TGGAGTTAAG CATCGTGAAC ATGCTTAACA CTACTGAACT GTACACTCAT 120  
TTTATAATAA AACTATTAAA TTGTAAA 147

SEQ ID NO:4802

LENGTH:295

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05708

SEQUENCE DESCRIPTION:

GATCTAATTT AAAATTCATT GGATTGAAAT NTATTGAATA TAATTCANCT TTTGTAACTA 60  
GGTAGACTTT NCTNATAGTT TAGTTTTAAT ATAGTTTAGG GTATTACTGG CTTTTCCTCA 120  
GGTGACACAC TAAGGNCCTGT TTACATGGCA ATTCCAGCAG CAACAGGNGG CTGGAATTNA 180  
GACAAGGAAA GCTCATTGT TTCTTTTATG AAGGTTAAAG AAGTCTACAG CTTGGGCTGG 240  
CCGGTATTTA TTNATTCTGT GGCCAGAGGA TTTTAAATTT NNCNCNAATN TTNTN 295

SEQ ID NO:4803

LENGTH:52

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05709

SEQUENCE DESCRIPTION:

GATCATGCCA CTGTCCTCCA GCGTGGCAAC AGAGTGAGAT TCTGTCTCCA AA 52

SEQ ID NO:4804

LENGTH:374

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05710

SEQUENCE DESCRIPTION:

GATCAGATGG GGACACACAA CCCCTGGATA TGTTTCATTG TCAGATTTTG TGCTGNNATT 60  
 TTAAGAATGG AATGGTGGGT ATCTTTCCTT TTTTAAATG TATCTTAACT GTGCCTGTC 120  
 AGTGNNNACA AACTAGTGCG TTGACGGCAC CGTGTCCAAG TTTTGAAC CCTTGTTAGC 180  
 CAGACCGAGG TGTCCTGGTC ACCGTTTCAC CATCATGCTT TGATGTTCCC CTGTCTTTCC 240  
 CTCTTCTGCT CTCAAGAGCA AAGGTTAATT TAAGGACAAA GATGAAGTCA CTGTAAACTA 300  
 ATCTGTCATN GTTTTACCT NCCTTTTCTT NTTNAGNGC AGAGGTAAA AGTAAGTATN 360  
 AAGCACCCGT GAAA 374

SEQ ID NO:4805

LENGTH:123

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05711

SEQUENCE DESCRIPTION:

GATCTGACTG TGGAAACATC CTCTCACTG CATTCTTTTA ACTTAAACT ATTTAAGAAC 60  
 TGATGTTCCG ATTATTGTAT ATATTNNCT AAAANCCAAA TAAAGCTACC TATGAAAATG 120  
 AAA 123

SEQ ID NO:4806

LENGTH:299

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05714

SEQUENCE DESCRIPTION:

GATCAAACAG GAAATTGAAA GCCACTGNAA CTATGCAGCA TTTCAGTTT CATTAAACA 60  
 CTTAGTTCAG AAACCTTAAA GGATTGANT ATTTCAAATT GCACACGTCA CTCCAGCATC 120  
 TCTGTAANAT AATTGGAATG AANATACTTC TTGCACTTAA ACACTGCACA TGCCGTNCTT 180  
 TGCGGTTNGT CTGCATCTTG AACTTTAATA CCAANTTNT TTGTCATGCT TTTGTTTCCT 240  
 ACGNGATAAT GGCATGGTTT CATATGTNAC TACTTTGGAC CAGTGTTC ANNATGGNN 299

SEQ ID NO:4807

LENGTH:204

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05715

SEQUENCE DESCRIPTION:

GATCTGGACA AATGACAGTA ACTGTTTCTA ACCTTGATTT TCTCATCTNT AAGATGCCAA 60  
 TTGTAACCTC TAAGGNTACT GAGGATTTT TAAATGCGT GTACAGTTCC TGACCAGTGG 120  
 TTTGTGCCTA ATAACNTATT ACAAATNATT ACCNAGTAAA ANCCTGCGC CANGTGTGAN 180  
 AACGTAAAGC TANTTAATCC ATNN 204

SEQ ID NO:4808

LENGTH:348

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05716

## SEQUENCE DESCRIPTION:

GATCAAGCGA CCTTGAGAGC AGAGNACAAA TCCCAGTGTT GCTGATATAT GGCTTCTNCT 60  
 TCTCTTGTGT GTGCCTCAGC TCTGAAGNAG TTCCTGAGAA TGGGTTACAG ATGTCATGTT 120  
 AGCTGGGAGT CTTCCACAT GTGGCACTTC AAAAGGCAGC ACCACTGGGC GCCTGCACTT 180  
 ATTTGAAAAT GGNACTTTGG GNGAAGTATC CCTGCTAGTG GCTCTGTAAC TTAACAGATG 240  
 TCANTTAGGC TTTTGTCAAT GTTGCCATCA TATNNANGCT AATGNTACA TCCTTTTAAA 300  
 CANNTTNGNT ATGACAATTN CCTCAGGATT TNGGGTAAGN CTTCCCAN 348

SEQ ID NO:4809

LENGTH:287

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05718

## SEQUENCE DESCRIPTION:

GATCCTCCTG CAGACCACGC CCGTCCTGCC TGTGGCGCCG TCTCCAGGGG CTGCTTCCTC 60  
 CTGGAAATTG ACGAGGGGTG TCTTGGGCAG AGCTGGCTCT GAGCGCCTCC ATCCAAGGCC 120  
 AGGTTCTCCG TTAGCTCCTA TGGCCCCACC CTGGGCCCTG GGCTGGAATC AGGAATATTT 180  
 TCCAAAGAGT GATAGTCTTT TGCTTTTGGC AAAACTCTAC TTAATCCAAT GGGTTTTTCC 240  
 CTGTACAGTA GATTTTCCAA ATGTAATAAA CTTTANTATA NAGTAAA 287

SEQ ID NO:4810

LENGTH:342

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05719

## SEQUENCE DESCRIPTION:

GATCACCACC CCGAGCCCTC TNATCCTCTA TGGNTTCACT CCCATCATGA TTTGGAATTA 60  
 TTTATTTGTG AACTTGATTA GCCGAGATTG TAAATNACAT GAGGTCAGGG ACTGGACTGG 120  
 GTATGTTTTT TTCTCTGTTG CTTTCCTGGC ATGAAGTACA GTAAATACAG CACCTGATAC 180  
 ATTATACATG GCCACAAATA TTTGTTGAAT GAATGANTAA AAGCACATTG GGTTC TGACC 240  
 ATTCAGTGTC CCTGNAANGA ATGCAGTTTT TCAAACCTGT GCNTCACCAT CCATTAGCGG 300  
 GNGTGGAAT CCAATTTAGG TNGGTGATGT CTAGCATTNN AN 342

SEQ ID NO:4811

LENGTH:299

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05720

## SEQUENCE DESCRIPTION:

GATCATTAAC CAGAGTACCT CTACTCTTAG CAAACTCTAG TTTATGACAA GTATTTAAAA 60  
 TATTTAAAC AAGCTTATGC AGTTCTTAAG GNCGNAGGTA AATGAGATGT ANCTTAAAAA 120  
 TAGTATTGGG AAAATGTTGA TAGTTAACAT TAGTGGATTT AGACTAGCCA AATGACATAG 180  
 TAGGCTCTGA AACATCTTGT CAAGTNTATG TTTTTGTGC ATGANTTTTT GCTGGAAAGC 240  
 TGTCTTTCTC TGAACAAAC ANCGTTCTTA GACTGNNANG CCANTTATAA CNTAANN CN 299

SEQ ID NO:4812

LENGTH:310

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05721

SEQUENCE DESCRIPTION:

GATCTTNATG CCCAACATTG GTTATGGAAG CAACAAAAAA ACAAAGCACA TGCTGCCCAG 60  
 TGGCTTCCGG AAGTNCCTGG TCCACAACGT CAAGGAGCTG GAAGTGCTGC TGATGTGCAA 120  
 CAAATCTTAC TGTGCCGAGA TTGCTCACAA TTTTNNGNTC CAAGANCCGC AAAGCCATCG 180  
 TGGAAAGAGC TGCCCAACTG GCCATCAGAG TCACCAACCC CAATGCCAGG CTGCGCAGTG 240  
 AAGAAAATGA GTAGGCAGCT CATGTGCACG TTTTCTGTTT AANTAANTGT AAAANCTGCC 300  
 ANANAAANTN 310

SEQ ID NO:4813

LENGTH:63

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05722

SEQUENCE DESCRIPTION:

GATCCCTTTT CTTTGTATGG ACCAGAAATN ATGGGTTGTA CAGGGTGCCA GATAGATTGG 60  
 AAA 63

SEQ ID NO:4814

LENGTH:127

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05723

SEQUENCE DESCRIPTION:

GATCCAGTG CTCTACTGGG GGATGAGAGA AAGGCATTTT ATAGCCTGGG CATAAGTGAA 60  
 ATCAGCAGAG CTCTGGGTGG ATGTGTAGAA GGCAC TTCAA AATGCATAAN CCTGTTACAA 120  
 TGT TAAA 127

SEQ ID NO:4815

LENGTH:350

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05724

SEQUENCE DESCRIPTION:

GATCGAATAC AGATGACCCT GCTGTCGTGT CTTCATTTGT AAAATNCTCC TACAAATGGA 60  
 GACATTGAAG GATTATGTGT ATGGAAATNT TTACAAAATT CCTTTCTGTA CCTATTCTGT 120  
 AGATGCCTGT ATAATCGGNC TGGATGTACA GCTATAAATG TGTGTGAGA GCAAGAGAGA 180  
 GAGAATGGGT AGAGCCTGCT GTACCTTTTT CCTTTTAAAT TCTTCGAGTT GGTAATGAG 240  
 TAAGATATTG GAAACCTTAA TGNAAAGCTG CTGTTTCATGN TTTGTGTGTA TAGTGAGCTG 300  
 CCTGTAGTAT TTNCTATTG TCTGNTAAAA AAAGNAAANC CTGTAAAAACN 350



SEQ ID NO:4816

LENGTH:178

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05725

SEQUENCE DESCRIPTION:

GATCTTGAAC AAAGNCACTT AGTTNCCCTG GGCCTTGGTG TCTTTCGTCT ATAAAAATATT 60  
GTACCAGATT ATCTCTGAAA TCACTNCAAG GTTTAATATA TATANTTATC AATATTTTAA 120  
AATTCAAGCA ATATTCCTT TAGANATTAT TATAACATTC TATANTNGTN GGGGGGGN 178

SEQ ID NO:4817

LENGTH:123

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05726

SEQUENCE DESCRIPTION:

GATCGAATCG GGACATNATG GGAGCTGACA AATTTATATT CTNTTCAAT NATTTTAATC 60  
CCACTTCACT GTGAGGGGAA GGCCTTTTCA CGGGAACCTCT CCAAATATTA TTCAAGTGCC 120  
AAA 123

SEQ ID NO:4818

LENGTH:61

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05727

SEQUENCE DESCRIPTION:

GATCCCAAAT TTGTCCATAG CTGAAGTCCA CCATAAAGTG GATTTACTTT TTTCTTTAA 60  
A 61

SEQ ID NO:4819

LENGTH:292

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05729

SEQUENCE DESCRIPTION:

GATCTATAGA ATTAGATTTN NTTATATCTA AAGAAATATA TATAAATACA TAAACGTAGG 60  
TATGTATAGC ATGANCAGAA TACAGTGCTA TTTGACCATT GTCACAAGAC TTATTTATAA 120  
AACCTCCTCA AGCTCTTGCC AATATCTTAG TTAAGNTTGC ATCTAAGGTG GCGGGNGGAT 180  
GNNGATTGAG GCACTGTCAG GTCATGNTTG ATTACCTGGG TGACAANATT ATGTTTACAC 240  
CAAACCCCA TGNCACACAG TTTACCCATG TGACANNACN TNCACATGTC CN 292

SEQ ID NO:4820

LENGTH:61

TYPE:nucleic acid

2153480

TOPOLOGY:linear

CLONE:HUMGS05730

SEQUENCE DESCRIPTION:

GATCCCCCAT ATACTCTGCT ACAGCTCCTA TCATGAAAAA TAAATGTTT GTCTTTGCAA 60  
A 61

SEQ ID NO:4821

LENGTH:140

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05731

SEQUENCE DESCRIPTION:

GATCCGNTGG GGTGAAAGCA GCCAGTCAT CCCAGTAACT CACAGGACAC AGCCATCCAG 60  
CGGCATCTTT CTTGTGCGAA TGATACTGTA ATNACCTTCC AAAGTNAAGA GTAGCACATT 120  
AAAGTNATTT TATTGTAAA 140

SEQ ID NO:4822

LENGTH:309

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05732

SEQUENCE DESCRIPTION:

GATCTCAATG CTGTCTGGGG ACCCTAAGAG TTTNCTNACC TGTNCAGTCT CATCTAACCT 60  
TCCAATGTCT GATGTTCTTG CCAAATTCCT GCCTGATTCT GGGTCCGTCC TGACCTCCAA 120  
AGGTCAGCTT GGTGCTTGAG GTCTCCCTGC TCTTGGTGGC AGTGGTAGCA GCAACAGCAG 180  
CAGCAGCAGC AGCAGCAGCA GCAGCGNCCT CTCCACTTTN CCTTNGCCCN TCTNCTGGGT 240  
AGAGAGGCAC TTTCAGGGAC TTTCCTCCAG GNTGGNTCNT CAATATGGGA ATGNGCTNTG 300  
NAAGGNTTN 309

SEQ ID NO:4823

LENGTH:109

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05733

SEQUENCE DESCRIPTION:

GATCCTCCTG GCGGCAGTAG CTTTGACAAG GGCCACCTCT TCACAGGATG CAGTCTGTCT 60  
GTGCACCAAA CTCTTCACCA AATAGAACAC TTGTGTCTCT CTGTGGAAA 109

SEQ ID NO:4824

LENGTH:233

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05734

SEQUENCE DESCRIPTION:

GATCCATTTG GNAGGAAATG AGAGGGCTGT NATCAGCTCT NATTAAGAAA GGAGATTCT 60

01483

TCATGCTTTC GATTCTGCAT GGGGTACAGC CAGTCACCTC ACCAGAGANT GACGGCTGGA 120  
 GAAGTNAACT CTGTAATACC ATAAATAAGA GTGCTTGTA TAAAAGNCTG TGCACANGGA 180  
 TTAATATTTT CCNTCTTAAG TATCAAACGA CCTCTGGANC AAATTNTACC NTN 233

SEQ ID NO:4825

LENGTH:102

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05735

SEQUENCE DESCRIPTION:

GATCTGACGT TTTCTACGTA GCTTTTGTAT TTTTITTTTT TTAAANTTG AAGGACCACT 60  
 GATGAAGCCC TNCCANACCC CTCCCGGGTC TAANAAAACG TN 102

SEQ ID NO:4826

LENGTH:277

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05736

SEQUENCE DESCRIPTION:

GATCAAGAAA TNTCTCTNCT CCTACATCCA GCTCCTCTAG GGGCAGCCTC CGTCATCCAT 60  
 GCCCTCCAG GACCCTCCAC TCACTGCTGT GAGTGGCCT CACCAGAACC AGTTAAGAGA 120  
 CAACTATCAA TTNNGGGGAC CCAAATTATA AGGGCCCTGN CCTGTACTGA AGNAAAGGGG 180  
 NGCACAAGGC CTTAATGGAC ATTGNCTTGT GAAAACGCAN ACATGAATAT GGTGGGAGAG 240  
 CNTGGCTTAG GAGGGTGTCA TGGGGNAGNA GNGGCTN 277

SEQ ID NO:4827

LENGTH:98

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05738

SEQUENCE DESCRIPTION:

GATCCCTCTT CCTGCCAAG CACTTCACAG CTGGACCCTG CTTACCCTC ACCCCCCTCC 60  
 TGGCAATCAA TACAGCTTCA TTATCTGAGT TGCATAAA 98

SEQ ID NO:4828

LENGTH:81

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05741

SEQUENCE DESCRIPTION:

GATCTGGGAT TTTNTTTTAA TTTTGAAATG GGAGCTTTTT TGTTTACAAG TTCATTAAAA 60  
 ACTAAAAACT GTTCTGTAA A 81

SEQ ID NO:4829

LENGTH:234

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05742

SEQUENCE DESCRIPTION:

GATCGATTTC TTTCTCCAG GTAGAGTTTT CTTTGCTTAT GTTGAATTCC ATTGCCTCTT 60  
 TTCTCATCAC AGAAGTGATG TTGGAATCGT TTCTTTTGT TGTCTGATTT ATGGTTTTTT 120  
 TTAAGTATAA ACAAAGTTT TTAATTAGCA TTCTGAAAGA NGGAAAGTAA AATGTACANG 180  
 TTTANTAAAA NGGGGCCTTC CCCTTTAGAC TAANTTTCAG CATGTGCTTT CAAA 234

SEQ ID NO:4830

LENGTH:130

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05743

SEQUENCE DESCRIPTION:

GATCCACCCA CCTCAGCCTC CCAAAGTNCT GGGATTACAG NCATGAGCCA CCATGCTCAG 60  
 NCGTGTGTGT NTGTGTGTAT TATTTATATG TATATGCATA CTATATACAT NTATATATAC 120  
 ACTATATAAA 130

SEQ ID NO:4831

LENGTH:103

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05747

SEQUENCE DESCRIPTION:

GATCTTTAAT CAAGCACTAT GTTAATACTG TAATATCAGA ATACTATGTT GCATTATTTA 60  
 AAATGTTCAA ATTGAATAGN TTAANAAGTT TTAAATNCT AAA 103

SEQ ID NO:4832

LENGTH:325

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05748

SEQUENCE DESCRIPTION:

GATCCTTGGT GCTGTGTGCC CCACTCCAGT CTGGGGACCC CACTTCANAA GGTAGGGGCC 60  
 GTGTCCCGCG GTGCTGACTG AGGCCTGCTT CCCCCTCCCC CTNCTGCTGT GCTGGAATTC 120  
 CACAGGGACC AGGGCCACCG CAGNGGACTG TNTCAGAAGA CTTGATTTTT CCGTCCCTTT 180  
 TTCTCCACAC TCCACTGACA AACGTCCCA GCGGTTTCCA CTTGTGGGCT TNAGGTGTTT 240  
 TCAAGCACAA CCNACCACAA CAAGCAAGTG NATTTAAGG GGGTTGTGCT TTTTGTGTTN 300  
 GTGCTAACGT CTNACTAATT TTAAN 325

SEQ ID NO:4833

LENGTH:212

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05749

## SEQUENCE DESCRIPTION:

GATCTGAAGA GAAGCCAGAG TATAATTTNC TACTATTTTC AATACAAAGN TGTGTTTCA 60  
 TTACAATTAG NGGAATATAG GCTTCTGTGA GCTAGCCTGG AAGCAAACAT AATCATTATT 120  
 GTNCATTGTT TCTGTGNGAN ACTGTAATGC TGTTTCTAAA TATTGACCTA ACANTAAACT 180  
 CTGNGGAATT CATGCTGTN ACTGGNTGGA AN 212

SEQ ID NO:4834

LENGTH:284

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05751

## SEQUENCE DESCRIPTION:

GATCTGGCCT TATGCCCAGG CCTGGGCCCT CAGAAAGTAA GAGCTCTGGG AAAGAACCCA 60  
 AGGAGTTGGG GGAAGGAGAG AGCCCCAAAT AAACACAACC TGAGACCCA AAGTTTAAAG 120  
 GTGNAAAANG NACCAAAGAC CAGNCACAGT GGCTTCCGCC TGTAATCCA NCATTTTGGG 180  
 NGGCCAAGGC GGGAGGACTG CTTGAGGCCA GAAGTTGGNG ACCATGCCTG GGCANCGTGG 240  
 NCACCTCATT TTTACTACAA ATNAAANAAN CTTGCTGNG TAAA 284

SEQ ID NO:4835

LENGTH:60

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05752

## SEQUENCE DESCRIPTION:

GATCCTACTG ATGAAATTCC CACTAAAAAG TCAAAGAAGC ATAAAAAGCA CAAAAACAAA 60

SEQ ID NO:4836

LENGTH:144

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05754

## SEQUENCE DESCRIPTION:

GATCAAAAAA TTGAATGATA AATATGAATG GCTTTTCAAT TCTGTGGACT TTGTACCATT 60  
 TGGCTTCACC TTGTACTGCA AGATGAATTT GTAAACAAAA CAAAATTGGN CTGTCTGGAA 120  
 AGCTAAAGTN CTGAAATATG GAAA 144

SEQ ID NO:4837

LENGTH:138

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05755

## SEQUENCE DESCRIPTION:

GATCACAATG ANGGCCAAGC TTGCNCGCNT AGAGGCCAG GAGCAGGCCT TCCTGGCTCG 60  
 TTCAAAGGC CAGGACCCTG GGGCCCTCA ACTGCAGTCA GAGAGCAAAG CCCTTAATAA 120

ATATTTNACA TCCTTAAA

138

SEQ ID NO:4838

LENGTH:84

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05756

SEQUENCE DESCRIPTION:

GATCTTGTTT ACATCTTGCT CACTGCTATA TTCTCATTGC TGAGCACACA GTTGCAGCTC 60

AATAAATTTT GAATGAACTC CAAA 84

SEQ ID NO:4839

LENGTH:114

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05757

SEQUENCE DESCRIPTION:

GATCACCTNA TGGATGTCGC AATAATACAA ACCAGTGTAC CNCTGACCTN NTCATCAAGA 60

GAGCTGGGGT GCTTTGAAGA TAATCCCTAC CCCNCTCCCC CAAATGCAGC TGAN 114

SEQ ID NO:4840

LENGTH:323

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05758

SEQUENCE DESCRIPTION:

GATCTGCACT ATNAACTTTG TGAAGAGTTT CTCCTAAAAA CTTTAAGTAA AATGTTAATG 60

GTAGCTTTGA TAACATCAAA TTCTAAGGGA GAAAAAACA ATATTAAACC GCCCAAGCAG 120

TGTGCCCTAG CAGAGGAAAA TGCAACATCT CGCAAGCGCT GCTGTAACGC CTTCAGGAGT 180

CACTGATTCA GCACTAGTTT CCGGCTGTGA AAACATCATCT TTCATTTTTN CCGTGGNTNG 240

GCGCTTTTNT TANTNGTNGT CCTAATGANA TTTCTGNCAT TGTCATATAC AANCGNTGAA 300

TATCATTAAG ANTTTTTNAN TNN 323

SEQ ID NO:4841

LENGTH:121

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05759

SEQUENCE DESCRIPTION:

GATCAAAAAA ACGTTCTTTG AAGAGCTGGC AGTAGAAGAT AAACAGGCTG GGGAAGAAGA 60

GAAAGTNTCT AAGNGANGG AGCAGCAGCA GCAGCAACAG CAACAGCAGC AGCAANANAN 120

N 121

SEQ ID NO:4842

LENGTH:351

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05763

SEQUENCE DESCRIPTION:

GATCTTCACC AGCTGCTCGT GGTGGCTCGG TGTCTGTCTC TCAGTGCTGG TCAGACAACG 60  
 CTGTCAAGAG ANCGATGGCT GAGAGCAAAG CAGCTAGAGT CTTAAGAAG AACGAGGCTT 120  
 CAGCAGCAAA AATGTGTGAA TGGAAATNAA CTTTAAAGAT GTAATACCTA TGAAGAGTAA 180  
 TGGGCAAACT GTAGCCACAT AATTGTAAAA TTCAGATATT CATTTATACC ACATTGTTTT 240  
 ATAGGTAATT TCTATCACA ACCAGTGACA TTCCTGAAA TCANGCCTGG TAACACCTGA 300  
 TGTTTATATG ATATTAGTA AGGACTTTTA CCTTACTGAT TTCATGGNGN N 351

SEQ ID NO:4843

LENGTH:71

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05765

SEQUENCE DESCRIPTION:

GATCTGAATT TCCCATGCT TCCTGGTTTT NATATGTTTC TTGACAAATA AAGCTGATTT 60  
 AAATCTCTAA A 71

SEQ ID NO:4844

LENGTH:111

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05767

SEQUENCE DESCRIPTION:

GATCTTTTTT TTTATCTCCC TTCCCCTTCC TAAGTCCCAT TTCTTGGTCA TAAATATTGC 60  
 ATTATTCACA CTTTCAAACT GTGTATTTTC TTACAATAAA AAATGATGAA A 111

SEQ ID NO:4845

LENGTH:202

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05768

SEQUENCE DESCRIPTION:

GATCTCACCA CCCACCTGGC CTCGCAGGGC GTTCATCTCC TCCTCGTGGT TCTTCTTCAG 60  
 GTAGGCCAGC TCCTCCTTGA GGTTCTCAAT CTGCATCTCC AGGTCGGCTC TGGCCAGGGT 120  
 CAGCTCATCC AGCACCCTGC TTCAGTCCCT TCCCCTGCT TCCTTGCCTG ATGACAATAA 180  
 AGCTTGTTGA CTCAGCTATA AA 202

SEQ ID NO:4846

LENGTH:262

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05769

## SEQUENCE DESCRIPTION:

GATCANAACC CTAGCGCCTT TGGTCCTAAG AATGGNAGGC TGCCTTCNT CCCAATCTCC 60  
 CTGCCAGGGC CCACAGCGTG GCCCTAGCCC TCCCCTCCCC GGAATGTAGA ACGGGGACCC 120  
 TCGCAGGGTT GGGGCGGGGG CTGATACTCC TNGGNCCCTC CCTACCCTGC CCTGTGTGTT 180  
 GGCTTTNTGG CCGTCCAAGT GCCAATTGGG TTTTNGCCCA AATAAGGGCT GGTATTTNTN 240  
 CTNTGTNCTT GGAGGTGNGN TN 262

SEQ ID NO:4847

LENGTH:250

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05770

## SEQUENCE DESCRIPTION:

GATCTGTATG TNAGGCACCC ATAACAGTAG TTTCCCTGT NAGTCGTCTT CACACATGCT 60  
 GTTTTCTCTG CCTGGCTCTC TCTTCCCCTC CTTACCTGGC CAGTCCTGTT TATCATCAGG 120  
 CCTGTNTTG GATATNACGT CCTCTGGGAA GTCTTCTGGG NCCCTCTAAC CTAGGACCCT 180  
 CATTACCGGN TCTCATAGNA CAGTCTACTG NTTTGTACGG AATTCTAAGT ATTCNNGTG 240  
 GNACTNAATN 250

SEQ ID NO:4848

LENGTH:227

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05772

## SEQUENCE DESCRIPTION:

GATCATTCTT CAATTAGGAC ACAAACCAGA CAGGTTTAAT AGCGAATCTA ATTTTNAATT 60  
 CTGACCATGG ATACCCATCA CTTTGGCATT CAGTGCTACA TGTGTATTN ATATAAAANT 120  
 CCCATTCTT GANGATAAAA AAATTGTNAT TCAAATTGTT ATGCACAGAA TGTTTTTGGT 180  
 AATATTAATT TCCACTAAAA ANTTAANTGT NTTTTAAGGG ANNNGAN 227

SEQ ID NO:4849

LENGTH:231

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05773

## SEQUENCE DESCRIPTION:

GATCTAAATA TAAGAGCAAA AACCATAAAG CATCTAAAAG TAATTGAAGG AGAAAATCTT 60  
 AGTGCCTTTT GTNCTGGCCA AGATTTTTTA AAGAGGACAT AGAAGTCAGG AACTATAAAA 120  
 GAAACAATTT TAAATTTTNC TTTATCAAAA TAAAAGCCA TAGACCGGGA TAANNCATTT 180  
 GCAANATATA TNTCTGACAA AGTTCTTGAN TCAAGANTAT GTAAANANCNG N 231

SEQ ID NO:4850

LENGTH:128

TYPE:nucleic acid

TOPOLOGY:linear



CLONE:HUMGS05774

## SEQUENCE DESCRIPTION:

GATCAGCCTG AACACATAA TAAGACCCTG TCTCAACAAA AAATACAAA ATTAGCTGGG 60  
 TGTGGTGGCA TATGCCTGTA GTCCCAGCTA TTCAGGAAGC TCCATTGCAA TCTAGCCCGG 120  
 GTGACAAA 128

SEQ ID NO:4851

LENGTH:350

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05775

## SEQUENCE DESCRIPTION:

GATCCTTCCT TCAACCCCAA GGCCAGCTCC CATCTCATTT CCAGAAAGGC TCATACCTGG 60  
 CTTGCAGGGA AGCATCTGTC TTGTCATTCC AGGTGCCAGA ATCCTCTCAG AGTCATTGAA 120  
 GGGTGTTCAC CCATCCCACC CAAGGCTTGG CACACTGCCA GTNTCTTAGC AGGGTCTTGT 180  
 GAGGGCTGGG GGCATCCAGG CACTCAGAAG GCAAAGGAAC CACCCTACCC ATTTGGCCTC 240  
 TGGAGGGGGC AGAAGAAAGA AAGAAACCTC ATCCTATATT TTNCAAAGCA TGGGGGTTCT 300  
 NGCATTAGC TCTGGNGGGT GANCCANTGT GCTTNCTTGN TTAAGTGTCN 350

SEQ ID NO:4852

LENGTH:355

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05776

## SEQUENCE DESCRIPTION:

GATCTCAGTT TCCCTCACTC AGGAACTCTG TTTCTAAAGT CTTCAGTTAA GTTNAGTTT 60  
 ATNACTGAGT GGCCTGTACT GTCAGACGTG AATGGGCCTG ACGGGCAAAT CCATCCCTCT 120  
 CTCCCTCACA GTTCCAGGAG CGGCTTCCCT CGTCTCCCCT TACTCCACAG GGAGCCTCCC 180  
 TTGCCAGGAC CAGGGCTGCG ACGGCCATGC TGGGGCAGGT GAGTGCTCTG TTAGCTGCTC 240  
 CCAGTGCTGT CCNAGGCTG CAGTTCTGGT CCNNGGGGTG TNAGGGTAGG GAAGGGTGCA 300  
 CTTGAAGGAN GGTGGTTCAA TTTGGGNTN CCTTAACGTT TATAGTCTNN ACAAN 355

SEQ ID NO:4853

LENGTH:81

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05777

## SEQUENCE DESCRIPTION:

GATCCAGGAG TTTAAGGTTA CAGTGAGCTA TGACCGCTAC TNACTCCAG CCCAGNCAAC 60  
 AGAACAAGAC CCTGTTTCAA A 81

SEQ ID NO:4854

LENGTH:136

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05778

## SEQUENCE DESCRIPTION:

GATCCTCCGT AACATTNCNA GACCAGANAG AACATCCAGA AATCCCTGGN TGGAAGCTCA 60  
 GGCCCCGGGG CCTCCAGCGG CACCAGCGGA GACCACGGTN AGCTCGTCGT CCGGATTGCN 120  
 ACGATTAAAG ACTGAN 136

SEQ ID NO:4855

LENGTH:108

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05779

## SEQUENCE DESCRIPTION:

GATCAAATAT TTTTNATTAA CCTATATAAA GAATTTGACT GCTTATGATT CAATACATAT 60  
 GATTTAATAA AATAGATTGC ATTTTNNAAA ATAAAGAATG ATTNAAAA 108

SEQ ID NO:4856

LENGTH:362

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05780

## SEQUENCE DESCRIPTION:

GATCAACCTC TGATTTTACA TCATGATGTA ATCACCCTG GAGCTTCACT GTTACTAAAT 60  
 NATTAATTC TTGCCTCCAG TGTTCTATCT CTGAGGCTGA GCATTATAAG AAAATNACCT 120  
 CTGCTCCTTT NCATTGCAGA AAATTGCCAG GGGCTTATTT CAGAACAACCT TCCACTTACT 180  
 TNCCACTGGC TCTNAACTC TCTAACTTAT ANGTTGTTGGT GAACCCNCAC CCAGGCAGTT 240  
 ATCCATGAAA GNACAAGTGG ACTAGTNCTA TGNNGTACAA AGGCCTGTAT CNTCTGTNG 300  
 ATGGATTTC TGGTGTCTTT NGCTTGTTTG CAAGTTGCTT AANTTAAAGG CAGNTNTTTN 360  
 TN 362

SEQ ID NO:4857

LENGTH:102

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05781

## SEQUENCE DESCRIPTION:

GATCCTACCG GAAACCAACC TGTTTACTGT ACTGTTGTAA ATATCATGCC CTTTATATCC 60  
 TGTATATTGG CTTCTTTTAA ATAAAGTGAA ATGTCTTAGA AA 102

SEQ ID NO:4858

LENGTH:195

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05782

## SEQUENCE DESCRIPTION:

GATCTAACT TTATGCTGCA TAAATCACTT ATCGGAAATN CACATTTTAT AGTGTGAAGC 60

ACTCAANNTN TAAACCTTAT TATCTAAGGT AATATATGCA CCTTTCAGAA ATTTNTTTC 120  
GAGTAAGTAA AGCATATTAG AATAATTGTG GGTGACAGA TTTTAAAAAT AGANTTTAGA 180  
GTATTTGGGG TTTTN 195

SEQ ID NO:4859

LENGTH:210

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05783

SEQUENCE DESCRIPTION:

GATCCCTTTG AAATNTTTTT TTTGTTTGTG TGTTTAAATC AAGCCTGAGG CTGGTGAACA 60  
GTAGCTACAC ACCCATATTG TGTGTTCTGT GAATGCTAGC TCTCTNGAAT TTGGATATTG 120  
GTTATTTTTT ATAGAGTGTA AACCAAGTTT TATATTCTGC AATGCGANCA GGTACCTATC 180  
TGTTTCTAAA TAAANCTGTT TACATTCAAA 210

SEQ ID NO:4860

LENGTH:139

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05784

SEQUENCE DESCRIPTION:

GATCTTTGTT TGTCTGAACA GGTATTTTAA TACATGCTTT TTGTAAACCA AAAACTTTTA 60  
AATTCTTCA GGTTTTCTAA CATGCTTACC ACTGGGCTAC TGTAATGNG AAAAGNATAA 120  
ANTTATTTAA TGTTTAAA 139

SEQ ID NO:4861

LENGTH:150

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05785

SEQUENCE DESCRIPTION:

GATCCTGAAA GAATAATTGG TGCCACAGAC AGCAGTGGAG AATTGATGTT TCTCATGAAA 60  
TGGAAAGNTT CAGATGNGGC AGACTTGGTG CTGGCGAAAG AGGCAAATAT GANGTGTCCT 120  
CAAATTGTAA TTGCTTTTAA TGNNGNGNGN 150

SEQ ID NO:4862

LENGTH:155

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05787

SEQUENCE DESCRIPTION:

GATCGCAGAT TTNTNTAGAA ACACGGATGT NCATGTCCAG ATTCCCTTTT NCAGGTATTA 60  
AAAATAATTA AAAATAGTCC TGCCTGAGGT TGCAGTGAGC CGAGCTTGCA CTA CTGCACT 120  
CCAGCCTGGG TGACAGAGTA AGACTCCATG TCAAA 155

SEQ ID NO:4863

LENGTH:262

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05789

SEQUENCE DESCRIPTION:

GATCTGTACA ACTGATTTTA AAAAAATGCT AAAAAAGCC CCAAAGCATA TAATCTCTAC 60  
 TCCTTACAGT CTCTAGAATT AAATGTACTC ATTTAGACAA CATATTAAAT GCATATTNA 120  
 GCCACTTTAG AGAAACCTCA TAGGCACAGA GTTCCAAGN TTAATTTTAA GNATATCTTC 180  
 ACGAACTTGA CCCTCCTACT CCACATTGCA NCATTTCCNT CAGNCAGCAT TTNAATTCCN 240  
 GTATTATGTN TNTNGCAANT NN 262

SEQ ID NO:4864

LENGTH:232

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05790

SEQUENCE DESCRIPTION:

GATCAAGAAG GCCACTGGTG TGCAGGTGTN AGGCTCCTAC AGGCCCACTC TCTTCAGCAG 60  
 CCACCCGGCC CTCCTCCAG CACCCGTTTT AATCCCACAG AACAACGGGA ACGTTACTGA 120  
 CTCTGGTGCC TTATCTCGAA GGGACCAGAA GTGCTGCGTG TTCAGGCCAT CNNTGGCTGT 180  
 NTTCTGTCT CTCCTGTCTG TCCACCTACT ACTNNNTNCT NTACTTTANC NN 232

SEQ ID NO:4865

LENGTH:76

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05792

SEQUENCE DESCRIPTION:

GATCAGAGCC GACACCAGAC GTGATTAGCA GCGCACAAN ATTCAATTG TTAAATGAAA 60  
 TTGTATTTTG CCCAAA 76

SEQ ID NO:4866

LENGTH:80

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05793

SEQUENCE DESCRIPTION:

GATCTCTTGG GCCCAGGACT GTTGATGCCT TTNAGTTTG TATTCAATAA ACTTTTTTTG 60  
 TCTGTTGATA ATATTTTAAA 80

SEQ ID NO:4867

LENGTH:149

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05794

SEQUENCE DESCRIPTION:

GATCCATGCA TTATTTTCCT AGCTTCCTGC CTTGCTCCCT ATTCACITTA CACTGTGAAA 60  
GGTGGGGGGT GAGTCCCACT TGAGCGCTTC CTGTTGAATA AAGCAGGCAC TTGACCTGGC 120  
TGTAGCCTAG GTCTTGAGTG AACCCCAAA 149

SEQ ID NO:4868

LENGTH:209

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05795

SEQUENCE DESCRIPTION:

GATCATGTCT GTACATTGTG TAATGAATGA AAAGCACATA AATNTAATCT ACTTTGAACT 60  
TTGTAAAAAT AATGTGTGGA GGCTATTCTT GTTTCTCCAT CTCAAGTCCT GTGTGTGCAC 120  
GTGTGTGCAA GTGCACATGT GTGTGTGTAA TAACACATTG TAAAGANCAG AAATNACTTT 180  
AAAAAATAAA CAGAAATGGA GACCTGAAA 209

SEQ ID NO:4869

LENGTH:335

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05796

SEQUENCE DESCRIPTION:

GATCCGNCCA CCTTGACCTC TCAAAGTGCT GGGATTACAG GCATGAGCCA TCACGCCCGG 60  
CCACGCTGTT GGTTCCTAAT GACACAGCTT ANCTTTATTG TGAAAAGATT GCAGCAACAA 120  
ATGAGATTTT ACCTGTATTT GTTAAAAATG CTTATCCTTG TCTAAGACTG GCAACATAAG 180  
CAGTTCTTNG GCTTCTATGC CAATGGNCAC TAGGCAGTAA TACATGTGCA GTGCTANATA 240  
GAAAATATTG GAGTNAGGGT GTACTNAGGG AAGTTCTCAA TCTTTNCCCT NTCANTNTCT 300  
TCTGTAATAG TAACCTTNA TAACATGNNG ATTCTN 335

SEQ ID NO:4870

LENGTH:207

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05797

SEQUENCE DESCRIPTION:

GATCTTTCTG CAGGAAATAG TCACTCATCC CACTCCACAT AAGGGGTTTA GTAAGAGAAG 60  
TCTGTCTGTC TGATGATGGA TAGGGGGCAA ATCTTTTCC CTTTCTGTT AATAGTCATC 120  
ACATTTCTAT GCCAAACAGG AACAATCCAT AACTTTAGTC TTAATGTACA CATTGCATT 180  
TGATAAAATT AATTTTGTG TTTCAAA 207

SEQ ID NO:4871

LENGTH:208

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05798

## SEQUENCE DESCRIPTION:

GATCTGTCAC GGAAGGCGTC CTTTTTCCTT GTAGCTAACG TTAGGCCTGA GTAGCTCCCC 60  
 TCCATCCTTG TAGACGCTNC AGTCCCTACT ACTGTGACGG CATTTCATC CCTCCCCTGC 120  
 CCGGGAAGGG ACCTTGCAGG GACCTCTCCC TCCAAAAAAA GAAAAAAGA AAAAGANAGA 180  
 AAAANTAAAT GAGGAAACGT GTTNCAAA 208

SEQ ID NO:4872

LENGTH:84

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05799

## SEQUENCE DESCRIPTION:

GATCAGACCA TAATGTTACA TTATTATCAA CAATAGTGAT TGATAGAGTG TTATCAGTCA 60  
 TAACTAAATA AAGCTTGCAA CAAA 84

SEQ ID NO:4873

LENGTH:337

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05801

## SEQUENCE DESCRIPTION:

GATCCTGGCC GAGGTGAGGA ACAGACAGGG GGGGTCTAGA TTCTAAGGGG GTTGGTGGAT 60  
 ATTGGGCAAG GCAGGAAACC TCTGGAGACC TCATTTTCTC CATGGGGAAG ACAGCCATGC 120  
 TCTTCAGGAG GAGACTCCAA GGGCAAAGNA GGGTGTCTTG GCTGTNCTTG AAGGCGAAAC 180  
 CCTGCCATAT CCCCAGTGCC AGTCCCCTCA GNCGTGTGGTG GCCTTGCATC CTGACTGGAT 240  
 GTTCTCAGCC CNTTGTCTG GGCAAGAACC CAGAGCTCCC CAGTNTGGAT ACTTATTAA 300  
 CCTNTTTGGA GNCNCAAATA NAAAAAANA AANNAGN 337

SEQ ID NO:4874

LENGTH:329

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05804

## SEQUENCE DESCRIPTION:

GATCCAGGGG CTGATTGGCA GCGTGGAGGA GCAGCTGGCC CAGCTTCGCT GCGAGATGGA 60  
 GCAGCAGAAC CAGGAATACA AAATCCTGCT GGATGTGAAG ACGCGGCTGG AGCAGGAGAT 120  
 TGCCACCTAC CGCCGGCTGC TGGAGGGAGA GGATGCCCAC CTGANTCAGT ACAAGAAAGA 180  
 ACCGGTGACC ACCCGTNAAG TGCGTACCAT TGTGGGAAGA GGTCCAGGAT GGNAAAGGTN 240  
 AATCTTCTTC CGTGNAGCAN GGTNCAACCA GACCAACCGT TTGAGGGACT TANGTTACCN 300  
 NGNGCCGGGC CAACCNAAGG AGGGNNTTN 329

SEQ ID NO:4875

LENGTH:142

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05807

SEQUENCE DESCRIPTION:

GATCACTTGC TTTTATGTCC ACTTTTNNAG TGGTACTTAA ATGTAAAGTA ACAACCTGAA 60  
 TTGAGTCATT GCTTCTGAA GGAATCATTG TCCTTCTCC AGTTTTGTN CCAGAATAAA 120  
 AGGAAATATT TAAAAGCCA AA 142

SEQ ID NO:4876

LENGTH:331

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05808

SEQUENCE DESCRIPTION:

GATCCTNCAG CACAGGAATT CTCAAGACCT GAGTATTTTT AATAATAGGA ATGTCCACCA 60  
 TGAACCTNAT ACGTCCGTGT GTCCAGATG CTGTCATTAG TCTATATGGT TCTCCAAGAA 120  
 ACTGAATGAA TCCATTGGAG NAGCGGTGGG GNACTAGCCA GACAAAATTT NAGANTACAT 180  
 AANCAACGCA TTGCCACGGN AACATACAGN GGATGCCTTT TCTGTGATTG GGTGGGATTT 240  
 TTTCCCTTTT TATGTGGGAT ATAGTNGTTA CTTGTGACAN GTATAATTTT GGAATAATTN 300  
 CTATTAAATA TCANCTCTGA NGNTACTNGT N 331

SEQ ID NO:4877

LENGTH:61

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05810

SEQUENCE DESCRIPTION:

GATCATGCCA TTGCACCCCA GCCTGGGCAA CAACTTAACT TTTTGAAAC TCTGTCTCAA 60  
 A 61

SEQ ID NO:4878

LENGTH:81

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05813

SEQUENCE DESCRIPTION:

GATCCTCTGG ACACGTAACC TATGTCAGNC ACTACATGAT GACTCAAGGC CAATAATAAN 60  
 GCCATTTCCT ACCTGCACAA A 81

SEQ ID NO:4879

LENGTH:102

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05814

SEQUENCE DESCRIPTION:

GATCCANAGA GGACCCCGN CCCAGAGAC TTGGTTTTGG CTCCAGCCTT CCCCTGGCCC 60

CGTGACACTC AGGAGTTAAT AAATGCCTTG GAGGAAAACA AA

102

SEQ ID NO:4880

LENGTH:66

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05815

SEQUENCE DESCRIPTION:

GATCAAAAGG TCTCAGATGA TGATAAAGAA AAGGGAGAGG GAGCTCTTCC AACTGGGAAA 60  
TCCAAA 66

SEQ ID NO:4881

LENGTH:287

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05816

SEQUENCE DESCRIPTION:

GATCTCTAGA GTCCATTAAA AGCAAGCTAG ATTGAGAGCT CTTGGAGGGC AGGGACTGGG 60  
CCTAGCTCAT GGTTTACAGC TCTTGAGGGT GACTGCACAG TGGACTCAGT CAGTCATGGC 120  
TGAGTTGTGT TGGCTTNATT ATCTCTAGAA TGTAGTTCTC CATTCAAATG CAAATCAGCC 180  
TGGNNGGNTC ACCTGTAGTA AAGGGGGTTT CTACCTNGNG GATGGAAANA GNNNTCTTAG 240  
GNACCTTCCT TGGGCCTCCA GNACTTATTT TNGATATCCC NTTATGN 287

SEQ ID NO:4882

LENGTH:74

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05817

SEQUENCE DESCRIPTION:

GATCATACCA TTGACTCCA GCCTGAGTGA CCTGACTGAG ACTGTCTCAA AAAGNGTAAA 60  
ANATAAAAAT TAAA 74

SEQ ID NO:4883

LENGTH:106

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05818

SEQUENCE DESCRIPTION:

GATCTNACTC CAGCAGAGTC TGTNCCAATN TGGGGTGAGC AGGGCCCCTG CCATGGAGCA 60  
GCAGGAATTT NAGGGATGGA GCAGGTAAA GAATGGGAAA CATAAA 106

SEQ ID NO:4884

LENGTH:96

TYPE:nucleic acid

TOPOLOGY:linear



CLONE:HUMGS05819

## SEQUENCE DESCRIPTION:

GATCTTAGTG GTGAAAGTAT GTGTAACCAT GTGATGGTTA AACANGACT TACAATNCCT 60  
 AAATGTGTAA CTGAGAATAA AACGTACTCT NTTAAA 96

SEQ ID NO:4885

LENGTH:63

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05820

## SEQUENCE DESCRIPTION:

GATCCNAAGN CTCCGGGCAG CCGTTATCCC GTGGTTTAAT AAAGCTNCCG CGCGCTCACC 60  
 AAA 63

SEQ ID NO:4886

LENGTH:61

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05821

## SEQUENCE DESCRIPTION:

GATCCTGCTG TGTGTCCTGT TCCATGTTCC GGTTCATCC AAATACACTT TCTGGAACAA 60  
 A 61

SEQ ID NO:4887

LENGTH:274

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05823

## SEQUENCE DESCRIPTION:

GATCTCCTTG TCAGGAGCAC CTAAGAACTG GCATGACTCT ACACCCNTNC TCCTTCTNCA 60  
 ATGACCTCGT GTCAAGATGG CAGACCTGCA GAGATGAATT TGCCTNGATA CCTGAGTCAC 120  
 CAGNGNGGAG GAAACTCCCA TTNGACATGC ATCACACTCC ACATATGAAA CCCTNCTTTT 180  
 GCTGCACTGT CACTGGGGGN TAGGGGTTAT TACTCACTGC AACTTAGCCT AGCATTAAAGT 240  
 TGNTTTGACT NATNCANGTT TCAGTAAANG TCGN 274

SEQ ID NO:4888

LENGTH:268

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05824

## SEQUENCE DESCRIPTION:

GATCTGTGTT GGTTCCTTAG ATTGCTAGCT TTTCCTCCAG GGGACCACAG CAGGTGAAGC 60  
 TCAAGAGCGC ATGGCTCTGC TAATAGTAAA TTGTTTTCAG GGCCTTGTCC AGCTGAGAGC 120  
 TTCATGTCCA CCAGATTCTG AGAGGTGTCA GCAGCACTTT TTTTNNATT TGTTGTTNGG 180  
 TTTCNCCCG GTTATCGGAC CATGGGCTNA GCTCAGGCAC TTGCTGTAGG AGACTNGNNA 240

TTNCTGTAAA GGANNGGTNA TTTANCCN

268

SEQ ID NO:4889

LENGTH:323

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05825

SEQUENCE DESCRIPTION:

GATCAAACCT GGTCTGGGTA TTGATGAAGA TGACCCTACT GCTGATGATA CCAGTGCTGC 60  
 TGTAAGTAA GAAATGCCAC CCCTTGAAGG AGATGACGAC ACATCACGCA TGGAAGAAGT 120  
 AGACTAATCT CTGGCTGAGG GATGACTTAC CTGTTCAGTA CTCTACAATT CCTCTGATAA 180  
 TATATTTTCA AGGNTGTTTT TCTTTATTTT TGTNAATATT AAAAAGTCTG TATGGCATGA 240  
 CAACTACTTT AAGGGGAAGA TAAGATTTTC TGTCTACTAA AGTGATGCTG TGGTACCTTA 300  
 GGCACTNAAG CAGNGCTAGT ATN 323

SEQ ID NO:4890

LENGTH:66

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05826

SEQUENCE DESCRIPTION:

GATCTAAGAG TATGGCTAAA CATCTATATA TGCAATCTAT TAAAAGAACT TAATTCGGCT 60  
 ATTAAA 66

SEQ ID NO:4891

LENGTH:89

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05827

SEQUENCE DESCRIPTION:

GATCTCTGGA GCTCAAGAGG TTGAGGCTGC AGTGAGCCGA TGTGCCAGTA CACTGCAGCN 60  
 TNGGTGACAG AGCAAGACCC TGTCTCAA 89

SEQ ID NO:4892

LENGTH:344

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05829

SEQUENCE DESCRIPTION:

GATCGCCACT TACCGCAAGC TGCTGGAGGG CGAGGAATGC AGACTCAGTG GAGAAGGAGT 60  
 TGGACCAGTC AACATCTCTN TTGTCACAAG CAGTGTTCCT TCTGGATATG GCAGTGGCAG 120  
 TGGCTATGGC GGTGGCCTCG GTGGAGGTCT TGGCGNCGGC CTCGGTGGAG GNCTTGCCGG 180  
 AGGTAGCAGT GGAAGCTACT ACTCCAGCAG CAGTGGGGGT NTCCGCCTAG TNNNNNGGGC 240  
 TCAGTGTGGG GTGCTCTTGG CTTCACTGCA AGCAGTAGCC NGAGGGCTGG GGGTGGNCTT 300  
 NTGGCANTGG CGGNTNTAGC AGNTCCAGCG TCAAATTTTN CTCN 344

SEQ ID NO:4893

LENGTH:342

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05830

SEQUENCE DESCRIPTION:

GATCAGGNAG CCTCCTGATG CCAGAACACC TNAGGCAGAG CCCTACTCAG CTGTACCTGT 60  
 CTGCCTGGAC TGTCCCCTGT CCCCGCATCT CCCCTGGGAC CANCTGGAGG GCCACATGCA 120  
 CACACAGCCT AGTGCCCCC AGGGAGCTCT GCTGCCCTTG NTGGCCCTGC CCTTCCCACA 180  
 GGTGAGCAGG GCTCCTGTCC ACCAGNACAC TNAGTTCTNT TCCCTGCAGT GTTTTCATT 240  
 TATNGGGGNC AAACATTTTG CCTGTTTCT GGTTCAAAC ATGATAGTTG ATATGAGACT 300  
 GAAANCCCTG GGTGTGGAG GGGAAATTGG GNTNAGAGGG GN 342

SEQ ID NO:4894

LENGTH:138

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05831

SEQUENCE DESCRIPTION:

GATCCTGGAC TTNCCCTCA GCAAAGATGC CTCNTGGTG GTGACCACGT CAGGAGACCA 60  
 CAAAGCGAAA NTNTTNTTT TCCAAAGGCC TGACCGTTAA TGGCTGCAGC CCCTGCCTGT 120  
 TTGTNTGGTG TTGAGGGN 138

SEQ ID NO:4895

LENGTH:109

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05832

SEQUENCE DESCRIPTION:

GATCCACCCG CCTCAGCCTC CCAAAGTGCT GGGATTACAG GTGGGAGCCA CAACACCCGG 60  
 CCATGAATTA ACTCCGTAA AAAATAAAG TATACATTCT GTGAGCAAA 109

SEQ ID NO:4896

LENGTH:274

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05833

SEQUENCE DESCRIPTION:

GATCGGTTTC GCCATCATGA CGCAGTGTCT CCCAGTGGCC CTGTTCTCCC TGGTGGGCTT 60  
 CACCCAGATG ACCATNTGGG CCAAGGGCAA GCACCGCAGC TACCTGAAGG AGTCCGGGA 120  
 CTACCCGCCC CTGCGCATGC CCATNATNCC CTTCTGCTC TGAGCGCTCA CCCCTGCTGA 180  
 GGCTCAGCCC CTNAACCCGG TGGCATTCTG GGGGAGGAGT GGGGCCCA GNTCTCCAGC 240  
 ACCCGGAATA AAGCCCGNCT GCCCAGTCG GAAA 274

## DEMANDES OU BREVETS VOLUMINEUX

LA PRÉSENTE PARTIE DE CETTE DEMANDE OU CE BREVET  
COMPREND PLUS D'UN TOME.

CECI EST LE TOME \_\_\_\_\_ DE \_\_\_\_\_

NOTE: Pour les tomes additionels, veuillez contacter le Bureau canadien des brevets

2153480

## JUMBO APPLICATIONS/PATENTS

THIS SECTION OF THE APPLICATION/PATENT CONTAINS MORE  
THAN ONE VOLUME

THIS IS VOLUME 5 OF 8

NOTE: For additional volumes please contact the Canadian Patent Office

## DEMANDES OU BREVETS VOLUMINEUX

LA PRÉSENTE PARTIE DE CETTE DEMANDE OU CE BREVET  
COMPREND PLUS D'UN TOME.

CECI EST LE TOME \_\_\_\_\_ DE \_\_\_\_\_

NOTE: Pour les tomes additionels, veuillez contacter le Bureau canadien des brevets

2153480

## JUMBO APPLICATIONS/PATENTS

THIS SECTION OF THE APPLICATION/PATENT CONTAINS MORE  
THAN ONE VOLUME

THIS IS VOLUME 6 OF 8

NOTE: For additional volumes please contact the Canadian Patent Office

SEQ ID NO:4897

LENGTH:343

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05834

SEQUENCE DESCRIPTION:

GATCTTGCTG GATGTGAAGA CGCGGCTGGA GCAGGAGATT GCCACCTACC GCCGCCTGCT 60  
GGAGGGCGAG GATGCCCACC TTTCCTCCCA GCAAGCATCT GGCCAATCCT ATTCTTCCCG 120  
CGAGGTCTTC ACCTCCTCCT CGTCCTCTTC GAGCCGTCAG ACCCGGCCCA TCCTCAAGGA 180  
GCAGAGCTCA TCCAGCTTNA GCCAGGGCCA GAGCTCCTAG AACTGAGCTG CCTCTACCAN 240  
AGCCTNCTGC CCACCAGCTG GCCTCACCTC CTGAAGGNCC GGGTCAGGAC CCTGCTCTNC 300  
TGGNGNAGTT TCCCAGGTAT NTTCNNTGGT TCCTGTTGGT GAN 343

SEQ ID NO:4898

LENGTH:338

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05835

SEQUENCE DESCRIPTION:

GATCAGNAGC CCCCAACACA GGCAAGTCCA CCCATAATA ACCCTGCCAG TGCCAGGGTG 60  
GGCTGGGGAC TCTGGCACAG TGATGCCGGG CGCCAGGACA GCAGCACTCC CGCTGCACAC 120  
AGACGGCCTA GGGGTGGCGC TCAGACCCCA CCNTACGCTC ATCTCTGGAN GGGGCAGCCC 180  
TGAGTGGTCA CTGGTCAGGG CAGTGGCCAA GCCTGCTGTG TCCTTCCTNC ACAAGGTCCC 240  
CCCACCGTTC AGTGTACGGG GGTGACGTGT GTTCTTTTGA GTCCTTGAT GANTAAAAGN 300  
CTGGAACCTN ANAAAAAGTG NGNNGNGGTN TNTGNTAN 338

SEQ ID NO:4899

LENGTH:356

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05836

SEQUENCE DESCRIPTION:

GATCAGCCCC TGACTTNTT AAAAGATATC AGAAGTGTCT TGGAGCCAAC TAGAGGCAGG 60  
GTCATCCTTG CCCTTNTCCT CCCCTTTCAT CCCTATGTGG AAAACGTAGG TGGCAAGTGG 120  
GAGAAACCAT CAGAAATTTT GGAAATCAAA GGACAGAACT GGGAAGANCA AGTGAATAGT 180  
CTGCCTGANG TTTTCAGAAA ANCTGGTTTT NTTATCGAAG CTTTCACCAG ACTACCATAC 240  
CTGTNTGAAG GCGACATGTN TAANGNCTAC TNCGTTCTGG NTGACGCTNT CTTTGTCTC 300  
AANCCAGTAT AAACACGTGG NNGTCGAAGT CTTCAGAGTC CGTACCNTNC TGGATN 356

SEQ ID NO:4900

LENGTH:111

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05837

SEQUENCE DESCRIPTION:

GATCCCCAG AAAAGAAAGC TACAGAAGAA ACTGGGGCTC CTCCAGGGTG GCAGCAACAA 60  
TAAATAGACA CGCACGGCAG CCACAGCTTG GGTGTGTGTT CATCCTTGAA A 111

SEQ ID NO:4901

LENGTH:293

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05838

SEQUENCE DESCRIPTION:

GATCTTAATG GGTTCGATGG TAGGGAATAC GGAAAGGATA CACTGCTAAT ATTGTGTCTA 60  
ACAATAAAGC AAACAACCTCG ATGCTGTAAG AAGACAAGCT GTTTGAGCTT TCAAACACAC 120  
AGGGGCACAG CACAATTCAG AAATACCCAG GAGGATTCCT GCAGGCTTAA CAGTTGGCAT 180  
CGTACTGAAA TGAAACGTGT ATTAACANGA AANTGTCAAA CTTTGGGGA AACAAATTTT 240  
CTGTTACTTC CCACCCNACT AAAAGGGAAG ATAAACCAT CATCACCAGN NNN 293

SEQ ID NO:4902

LENGTH:99

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05839

SEQUENCE DESCRIPTION:

GATCTACATA AGGAAAGGAA GAATATTAAA GAAGAAATAA ATGAAGACGA GATAAAATCT 60  
TTTTTCTTAA TTATCAAATA AAAGTTTGTT AAAAGTAAA 99

SEQ ID NO:4903

LENGTH:290

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05840

SEQUENCE DESCRIPTION:

GATCAGGCAG TTCCTGGACT GTTCCACCAC TCAGAGTGAC CTGTCCCTGT GTGAGGGCTT 60  
CAGCGAGGCC CTGAAGCAGT GCAAGTACTA CCATGGTCTG AGCTCCCTGC CCTGAAGAGG 120  
TCGGTGCAGA CTCGGGGGCC AGTCCTGCAC NCACNTCTAC CCCTCGCCGA CAGCCAGACC 180  
ACAACACCAG ATTGTACCCA GATAGCTGGG ATTGGAAGTN AGGAGGTTTC TCACCCACCA 240  
GATAACCCAA GACACAAATG TGCAATTAAG AGTTTATTTT AGACCACAAA 290

SEQ ID NO:4904

LENGTH:68

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05841

SEQUENCE DESCRIPTION:

GATCTGCCCG CCTTGGCCTC CCAAAGTGCT GNGATTNCAG GCATGAGGCG CTGCATCAGT 60  
TCTGCAAA 68

SEQ ID NO:4905

LENGTH:223

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05842

SEQUENCE DESCRIPTION:

GATCTGCAAG CNGGAGCCCT CCTACCCGCA GCTTNAGCAC AGNATCATCC AGCCCTGGGG 60  
AGGCGCACCC TTAAGCAATA CAGACTGGGC TGAGGCTGAC AGGCAGAAGA CTAACAGAGC 120  
GCANTCTGCA CACGCAGGTT CTGGGCGGAC CTCTGGCCCT GGNCATCTCT GNACTAACTN 180  
ATCTGAATTA TGGAAGGTGG CAGTNTTGGT CANTAGTTT NNN 223

SEQ ID NO:4906

LENGTH:293

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05843

SEQUENCE DESCRIPTION:

GATCCGTCCG CTTGGGCCCTC CCAAAGTGCT GGGATTACAG TCGTGAGCAC CGCGCCCGGN 60  
CTGNGGTCAA TTTTCTATGT CAAGTGAGTG ACATTATTTT TACAAGTATT TTCTTCTTTT 120  
TAAAATTATA CCAGCAAATA CAGTTAATGC AGAAACCTAA GTAATTTGAG TGTAGCTATT 180  
CACAATCTAT GTGAAGNNNN CAAAATAGAA TGACCAGTTT TATTATAAAT TAAGGGGCTT 240  
AATTTTCTAA AAAAGNANAN AANTGAGCCN TATCTCTGTG TTTTATAATT ATN 293

SEQ ID NO:4907

LENGTH:65

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05844

SEQUENCE DESCRIPTION:

GATCACTGA GGCCAAGTAT TAAAAACCAG CCTGGGAAAT ACAGTGAGAC CTTNTNTCTA 60  
CCAAA 65

SEQ ID NO:4908

LENGTH:225

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05845

SEQUENCE DESCRIPTION:

GATCCTGAAG GCCTTCGAGT ATTTTACTAT TTGGTACAAG ACTTGAAATG TTTNGTNTTC 60  
AGTCTTATTG GATTACACTT CAAGATTAAN CCAATTAAAA TTGTATGTNT TCAGGCTGTT 120  
TGTATATTTN ATTAAGGGAT GGGAGGGGTT ATTTGTCATT TACAGTATTG GGGTTTTNAT 180  
GAATGTGAAG CAAACAANAN ANATTGTNT GTAAACTGTT TTNTN 225

SEQ ID NO:4909

LENGTH:135



TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05846

SEQUENCE DESCRIPTION:

GATCAGGTTG GGGGGCAGCC CCCAGTCCCT TTCTGTCCCA GCTCAGTTT CAAAAGACA 60  
CTGACATGTA ATTCTTCTCT ATTGTAAGGT TTCCATTTAG TTTGCTTCG ATGATTAAAT 120  
CTAAGTCATT TGAA 135

SEQ ID NO:4910

LENGTH:225

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05847

SEQUENCE DESCRIPTION:

GATCCAGTAT TTGATGAAAC TCATGAAAGT GGGTGGAGCC CATCTNGCCC CTCCTCTTTT 60  
CTAGGACGCA CTATATGTGA CTGTGACTTT CAAGGACATT TGTTTGCCAT TTGCTGATTT 120  
TTTTGGGAAG TNAATTNCTA ACTNCTTTCA CTGATAAATG NAGAAAAGTA TTGCACCNGT 180  
GAAATGCACC AAATGAATNG NGTTTTGTAA TTAATAAAN NTNTN 225

SEQ ID NO:4911

LENGTH:281

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05848

SEQUENCE DESCRIPTION:

GATCCCCTAA GGTCTGGCC CAGGNCTGCC CAAAGAGAAG CCCAGGATGG TCGGCTGCCT 60  
GGGGGCATTG TCACCACGTN GCCATGACGG CTGGTCCNA CAGNCCAGC TGGGAGGACT 120  
GGTTGTGCTG CTGGAGAAGG GCTGGAGAAG GCAATGGCAT GCTGCCGCTT TGCCAGTCCC 180  
TAGAAGTCGC GGTGCAGGTG ATGTGTNGNG AGCCGTNCCT NCANTGGGCA GGCCNNGGAG 240  
TNTACTTGTG TGCAGCTGAC CCAAGGGCAG CCACATNTNN N 281

SEQ ID NO:4912

LENGTH:179

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05849

SEQUENCE DESCRIPTION:

GATCAAAACC CAGCAGAGTG CAAGCAGCAG TGAAGCAGGA TGTATGTGGC CTTGAGGATA 60  
ACCTGCACTG GTCTACCTTC TGCTTCCCTG GAAAGGATGG ANTTTACATC ATTTGGGCAA 120  
GGCCTATTTT CAAGGTTTNT TTGGTNTGNT TGGNTNGCTT GTTTTTGGNT TNTGGCAGN 179

SEQ ID NO:4913

LENGTH:313

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05850

## SEQUENCE DESCRIPTION:

GATCGAGGGC TGGGNACCCC GGTGTNAGCA GGATGGGGCC CTGCCCTCCC GTGGNAGTTG 60  
 TGGACTCGAG CCCAGGGGCT GCGGTGTCCC AGGTCCCTGC CATCCNATT 120  
 TACCTGGAAT GTCTTCTCTG GAGTTTGAA TTGCTTGAGG AACCTGCGT GTGCTTGAG 180  
 AGGCCAGAGG GCTTGCTGAG AACCCCATGG ACAGTGGAGA GCGGGATTCTG AACCAAGGGC 240  
 TGGACTCCCA CACCTNTGGC CTGCGTCGCC CAGTTCTTTG TGGCTCTGAA GAATTGGNCG 300  
 CTGTGAAAA GTN 313

SEQ ID NO:4914

LENGTH:124

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05851

## SEQUENCE DESCRIPTION:

GATCTTATGT GTTACAAAAT TGGAGAAAGT ATTTAATAAA ACCTGTTAAT TTTTATACTG 60  
 ACAATAAAAA TGTTTCTACA GATATTAATG TTAACAAGAC AAAATAAATG TCACGCAACT 120  
 TAAA 124

SEQ ID NO:4915

LENGTH:313

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05852

## SEQUENCE DESCRIPTION:

GATCCCTGA ATGCCTTTGG AGGCCAGTAG AGCACACAGG GTATCCACAT GTTACCCTGC 60  
 AGCTACATTG TTGAGTTAGT GATGATATTG TATATGCTCA TGGTCTNAAC TGGATTACAA 120  
 AAAGCAAATA CTAGAACAGC TAGCTCATCT TTNACCCAAT GTACTTAGTA TTTTCNTGCA 180  
 CTGGTTTAAT CATGNTTAAT ACTACAAANC AAAANTAANT ATTCACAGT GGTGAGNTT 240  
 TNTTGTTTT AANCCACAGT TNGANTTAGT TAGCCTTGCT GGGGCCATAA TATGCTCAG 300  
 GGTGTGTAAN TGN 313

SEQ ID NO:4916

LENGTH:312

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05854

## SEQUENCE DESCRIPTION:

GATCTGGGGA CTACCAGAGA CTCTGGGAAA TGGACAAGGT GGGGGGCCCC ACTCTTTCTC 60  
 TCCTGCAGTC CCGTAGCTGG GGCCTCCTTC CTCTCAGGG TCTCCCAGC CCAGTCCCCT 120  
 TGCTCCCATC CCACTCGGTG CTGTTGGGTA GGGGCCCTGC CAGGAAGTGA CCAGCTNAGC 180  
 GAGGAGCCAT AATGTGCATA TGTGCACAAG CAGGGTTTGG GGAGGGGGNT GTGAGGGGNT 240  
 GTGCCCAGGT GTTGCCCCCT ATCTCCTGGG GAGGGTGAGG NAGGGCAGGG ACAGTNTCCA 300  
 GGGGTNAATT TN 312

SEQ ID NO:4917

LENGTH:55

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05856

SEQUENCE DESCRIPTION:

GATCTAAATA TTCTGTTTG GATTAGGCAA TTAAAATTT TTTGGCAACA GGAAA 55

SEQ ID NO:4918

LENGTH:370

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05857

SEQUENCE DESCRIPTION:

GATCCAAGGA NCGTTTGGNT TTTCCTAGCT ACATCTGGTA CCTGGGCTGG CATTATGGGA 60  
 ATNAGGTTCT ACCACTCTGG AAAATTCATG CCTGCAGGTT TAATTGCAGG TGCCAGTTTG 120  
 CTGATGGTCG CCAAAGTTGG AGTTAGTATG TTCAACAGAC CCCATTAGCA GAAGTCATGT 180  
 TCCAGCTTAG ACTGATGAAG AATTAAAAAT CTGCATCTTC CACTATTTTC AATATATTAN 240  
 GAGAAATAAG TGCAGCATTT TTNCATCTGN CATTTTACCT AAAAANAAG ACACCAAANC 300  
 TTGGCAGAGA GGTGGGAAAA TCAGTCATGT TTTACCAANC CTANCNGAGG TTGGCGTGT 360  
 TTGTTACCTN 370

SEQ ID NO:4919

LENGTH:168

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05858

SEQUENCE DESCRIPTION:

GATCTTGAAA GGAAGTATGC TGTTCTCTAT CAGCCTCTAT TTGATAAGCG ATTTGAAATT 60  
 ATTAATGCAA TTTATGAACC TACGGAAGAA GAATGTGAAT GGAAACCAGA TGAAGAAGAT 120  
 GAGATTCGG AGGAATTGAA AGAAAAGGCC AAGATTGAAG ATGAGAAA 168

SEQ ID NO:4920

LENGTH:128

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05859

SEQUENCE DESCRIPTION:

GATCATGGGA GGGAGCTGAG GGGTTAATAT ATATACATAC ATACACATAT ATATATTTNN 60  
 GTAAATAAAC AGGAACTGAT TTNCTGCCTC CATCCCACCC ATGAGGGCTG CAGGNACTAC 120  
 AAGAGAAA 128

SEQ ID NO:4921

LENGTH:166

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05860

SEQUENCE DESCRIPTION:

GATCGGGTCC CCAGAGCCAC CATCTCCTGA GCCTCCCACC CCGCTGCCTG GGCCTGTGG 60  
 TTGCTGGGCC TCCCACCTCA AGGAGGGGAA GGTGTACAG CCCGAACCCG TGGAGCAATG 120  
 CCCTGTNTGG NCTCCAAAAC CAAAATAAAA CTGGTGTAC TTTAAA 166

SEQ ID NO:4922

LENGTH:97

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05862

SEQUENCE DESCRIPTION:

GATCTTTAAA CTGCTTTATA CACTGTCACG TGGCTTCATC AGNTGTGTGC ATTCAGGAT 60  
 GGTTTTTAAA GNAACCTCAG AAAGNTATTT CCTTAAA 97

SEQ ID NO:4923

LENGTH:211

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05863

SEQUENCE DESCRIPTION:

GATCACAGAA AAATTAATAA TCCAAGTGCT CTCTAGATTT GTTGATAAAC ATTTTATGCT 60  
 TGCATTTAAA CTTGAAATGT ATGAGCAGAA TGAGACAATC AGTTAAATCA GAAATGAGAA 120  
 GTATTATAAT GTAAAGGCCT TGTGTTGCTG TAGCAATANN ATGACCAAGT GCAATGACTT 180  
 GATTTAATAA AATCATATNT TAAAGTTAA A 211

SEQ ID NO:4924

LENGTH:338

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05864

SEQUENCE DESCRIPTION:

GATCAACGCC TCACTGAAAC ATGGCTGTGT TTGCAGCCTG CTCTAGTGGG ACAGCCCAGA 60  
 GCCTGGCTGC CCATCATNTG GCCCCACCCA ATCAAGGGAA GAAGGAGGAA TGCTGGACTG 120  
 GAGGCCCTTG GAGCCAGATG GCAAGAGGGT GACAGCTTGC TTTCTGTGT GTACTCTGTC 180  
 CAGTTCCTTT AGAAAAATG GATGCCCAGA GGACTCCCAA CCCTTGGCTT GGGGTCAANG 240  
 AAACAGCCAG CAAGGNGTTA GGGGNCCTAG GGAAGTGGG CTGTTTGTG CCCATTGAA 300  
 NGGCGGNCCT NTGGGCCCTG GGCCCTTNA GTTTGGTN 338

SEQ ID NO:4925

LENGTH:259

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05865

## SEQUENCE DESCRIPTION:

GATCCTGTCT TCTTTCATGT TTACTACGAG GCATGACATT CATGGCAAAA CAGGGATGCC 60  
 GTTCCAAGA GCAGCTATAA AACAATCTGT TTTCTAAAG ACAGCCACTC TGAGAAGGNG 120  
 ATGANGGAAC ACGGCAGGGT TCATCANTTC ATAGACTGTT TCCAAAAATA ATTTTAAAC 180  
 TTTCCACTA GGCATCTGTG TCTTTAACCA CTGCACANTG GCNTTGCCTG TTTAATANAA 240  
 GGTNNTCANN ACGTGGAAG 259

SEQ ID NO:4926

LENGTH:195

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05866

## SEQUENCE DESCRIPTION:

GATCCACCCA CCTCGGCCTC CCAAAGTTTT GGGATTACAG GCACGAGCCA CAGTGCCAGC 60  
 TGAACACGTT TCCTAACAG AAGTGCGCAG AGCATGATGG AGCCAGCCT GGGCTTGACA 120  
 TTTGGAGAGA ACTACAGAGA AGTATCCAGA CTGTTGTAC TAATAATAA ATACATAAGC 180  
 TCCGCTGNAC GGAAG 195

SEQ ID NO:4927

LENGTH:56

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05867

## SEQUENCE DESCRIPTION:

GATCCAACAA TAAATATTA ATTTATAAAA AAGAAATTTT AAAAGTAAC AAGAAA 56

SEQ ID NO:4928

LENGTH:82

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05868

## SEQUENCE DESCRIPTION:

GATCATCCTC CAAGCAGTCC TGTTCATTCA TGTCTGCCTC AAATTGCTGG TGAATACATA 60  
 AAATAGTTAC TTGCTAATCA AA 82

SEQ ID NO:4929

LENGTH:286

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05869

## SEQUENCE DESCRIPTION:

GATCCACCCG CCTCAGCCTC CCAAAGTGCT GGGATTACAG GCAAAAGCCA ACACACCCGG 60  
 CCTGGATATG AATTATAAT ACCCTACAGT GCAGCACAAG AAGATGCACT CAAAGCACTG 120  
 ATGTGAGGAA GTACTTGCCC CGTAGCAGCT ATTCACTCTA CCAGTGTAAG CAAACTCTAA 180  
 GGCTAGGGCG GGCAGCACA GGCACANGNN TATACTAGCC AGGGGTTTAA TATAANTACA 240

ACCAGCATAG NAAGNCCCAA ANCTNTACAG NNNCCAANAC CNGGNN

286

SEQ ID NO:4930

LENGTH:311

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05870

SEQUENCE DESCRIPTION:

GATCTGTGCC CCATGCCTGT CCAGCCTGGG CAGCCAGGCT GCCAAGGCCA GAGTGGCCTG 60  
GCCAGGGGCT CTTCAGGCCT CCCTCTCTCT TCTGCTCCAC CCTTGGCCTG TTTCATCCCC 120  
AGGGGTCCCC GCCACCCCGG GCTCTCTGCT GTACATATT GAGACTAGTT TTTATTCCTT 180  
GTGAAGATGA TATACTATTN TGNTNAAGCG TGTCTGTANT TANTGTGTGA GGANCTGCTG 240  
GGNTTCANTT CGNGTGNACG GTGGGAGAGN TTGGGTGCCC GNGAGAATNG ACGGGCTNAT 300  
GGNTTCCTTT N 311

SEQ ID NO:4931

LENGTH:305

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05871

SEQUENCE DESCRIPTION:

GATCAAAAAA CTACCTATCT GGTACTATGC TTTNATCTG GATGATGAAA TAATCTGTAC 60  
AACAAACCCT GGTGACATGC AATTTACCTA TATAGCAAGC CTACACATGT GCCCCTGAAC 120  
CTAAAAAAA AGTAAAAGA AAAACGTTTG GNTTATTTTC CCTCTTTNGA ACAANGNCAT 180  
TGGTTTGCCC AAGGNCTACA AATAANCCAA CGGGAAAAAN GANAGGTTCC AGTTTGTNT 240  
GANAATTCTG ATTAAGCCTC TGGGCCCTAC AGCCTGGGGA ACCTGGNGAN TCCTACACCC 300  
GGGAN 305

SEQ ID NO:4932

LENGTH:233

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05872

SEQUENCE DESCRIPTION:

GATCCAGAGA CACACAAGAG CACCAAAGCA GCTCATCCCA CTGATGACAC CACGACGCTC 60  
TCTGAGAGAC CATCCCCAAG CACAGACGTC CAGACAGACC CCCAGACCCT CAAGCCATCT 120  
GGTTTTCATG AGGATGACCC CTTCTTNTAT GATGANCACA CCCTNCGNAA ACGGGGTCTG 180  
TTGGTCGNAG NTGTGCTNTT CATCACAGGG ATNATNATTN CTNACCAGTT GGN 233

SEQ ID NO:4933

LENGTH:276

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05874

SEQUENCE DESCRIPTION:

GATCTACTAA AACACTAAGT TTCATACTAA ACCGTTTCAT GTATCTTTAT CATATTCTGT 60  
 AAAGTTTACA CTTTGATGTA CCTGTATTTT ATTGAAATAC TGTCCAGCTT CAAATGGAAC 120  
 AATATTGTAT GTAGAAATTC CAATTACTGG TTTGTCAGTN GGATTCTTAG CTCTGTAAAA 180  
 CGCCAGTGCA GTCTCTCCTG GCACCACCTG TNTTAAAGAG TATATATATN ATCAGTNCTT 240  
 TGNNTCTCAC AAAGNGCCTC NNTTCCCTG CTAAGN 276

SEQ ID NO:4934

LENGTH:89

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05875

SEQUENCE DESCRIPTION:

GATCTGGTGG GCTGGGTCCC CCTCTCGACC NCAGACGCCC CTAAGTCGCC CCTTCTCATT 60  
 TTATACAATA AACATTCTCC ACCTACAAA 89

SEQ ID NO:4935

LENGTH:313

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05876

SEQUENCE DESCRIPTION:

GATCAGGAGT TCTAGGCTGT AGTGTGCTAT GAGCACATCT ATGAATAGGC ACTGCGTTCC 60  
 AGCCTGGGCA ACATAGTGAG GCCCCATCTC TTTAAAGGGC ACACGTGTAT AGGACAGCTC 120  
 CATTATAATC TTATGGGACC ACTGTAATAT GTGTAATCCA TTGTTGACTG GAACATCCTT 180  
 ATGCAGCACA TGAAGTGTA CATAACTTAA AATTATCAT TTAACCATTT TTAAGTGTA 240  
 CAATTCGGTG GTATAAAGTA CATTTACATT ATTGTGTAAC TATCACCTCT ATCCATCTCC 300  
 CTAACTTTTT CNN 313

SEQ ID NO:4936

LENGTH:224

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05877

SEQUENCE DESCRIPTION:

GATCCGGGTT CAGAGTGACG TTTTCTCTCA CAAGCAGAAG GTAACAAATT TCATGCTCTC 60  
 CCTAAATTCT GTCTGATTTT GCCTNGTGGT GATAGATTGT CANGAACACA ATGTCCTCTG 120  
 GAGAAATCTA TTGACAGAAA TTGGTGCACT GTTANCAACG CTAATGTAAA ACACAGANTT 180  
 TACAGAAAAN TAGAGAAAAT AAACACATTT GTNNGCCTCA GAAA 224

SEQ ID NO:4937

LENGTH:314

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05879

SEQUENCE DESCRIPTION:

GATCCTCTCT CCCAGGGAAT CCGACACAGG AGGAACCCCT TCTNTGGTTG ANCTGGGCCA 60  
 GGCCTAAGAG TAGCAGGAAC TCTAAGACCA CAGAGTTTTT TATAAATGTA TAAATGTATC 120  
 AAGCCAAATN TGCAGATGCT AACTGGACAT TCTGGGGAAC TGGGCACCAG GNGTGCCTTC 180  
 ATACACTGTA CCCAGCTCT NTTCTAAAAG AGAAGTNGGT GGGCACACTT GAACTGTTTG 240  
 GTGGNCCNAA CCACAGGANG CTGCAATTNT NTGGNTTAGG GTGATACTTT TGGCCCTNCN 300  
 TGTGGCCCT NTN 314

SEQ ID NO:4938

LENGTH:143

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05880

SEQUENCE DESCRIPTION:

GATCTGAAAG TATAAACTG CTAGAAGAAA ACATGGATAT TTGATTGGAC AATGATATTT 60  
 GGATATGACA CCAAAAGCCT AGGCAACTAA TGCAAAAATA GACAGGGAGA GTACATCAAT 120  
 CTTAAAAACC TTATGATGGC AAA 143

SEQ ID NO:4939

LENGTH:389

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05882

SEQUENCE DESCRIPTION:

GATCTGAAAT ACCATCTCTA CCAGAGACTC TGGGAAAAAT AATGGATTCC AAGTGTTAAA 60  
 CGGAATTAAG TTTGGCCTAA AACTGCCTCT GTACATAGTG ACTTATAACC TCACTTAATG 120  
 TATAAGCAA CTGGGACCTG ACTTGAGAGT ACACTTCTGT AACAAGCAGC AGAGTCTCAC 180  
 CAATCACATG CTGAAGGCTC CCAAACATG NCTATGTGAG GTGGAGGCTG ACCTGCAGTC 240  
 AGTCTGGCCA TGTACATGNG TCTTCCCTT NCTGTGGCTA TAAATAAATA CAGCCTGNAC 300  
 ACANCGGACA GGNGGACCGT TCTGNACCAN GNTTGGGTCC TGNGNGTAC CNAGGTNGAN 360  
 GNAACTTTTT TTNGCTCAN TTAACTGN 389

SEQ ID NO:4940

LENGTH:131

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05885

SEQUENCE DESCRIPTION:

GATCTCTCCG CCTTAGTTAA GAGCATGTGT CGGGAAATTC CTCAGAGTGC TCAGAGTCCC 60  
 TGTATNTTA TACCTTTTAA CAATGTAAAC TGTTCAAGAC TGNTTTTGT AACAAACCT 120  
 NNTGTTTTAA A 131

SEQ ID NO:4941

LENGTH:115

TYPE:nucleic acid

TOPOLOGY:linear



CLONE:HUMGS05886

SEQUENCE DESCRIPTION:

GATCATGGCG CAGTTGGNCA GGAGATGTTT TCCCCATCT GCTGTAGCGA ATATGTGAAG 60  
TGGGAGGTGG CAACNGAGCT GCCNTTCCAC CACTATTNCC ACAAGCCGTG TGTNN 115

SEQ ID NO:4942

LENGTH:105

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05887

SEQUENCE DESCRIPTION:

GATCCTCCCG CCTTNGTCTG CCAAAGCACT NGGGTTACAG ATGTGAGCCA CTNACCCAG 60  
CCTAATCTTN ATAAATCTCC ATCCCCATTA CTCTGGTTCA CCCNN 105

SEQ ID NO:4943

LENGTH:350

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05888

SEQUENCE DESCRIPTION:

GATCACGGAC GTGCAGCTCG CCATCTNCGN CAACATGCTG GGC GTGTCGC TCTTCTNGCT 60  
TGTTGTTCTC TATCACTACG TGGCCGTCAA CAATCCCAAG AAGCAGGANT GAAAGTGGCG 120  
CTTTCTCCGC CCCAGGGTTC CAGGACATAG TCTGAGGCAA GATGGAGGGT ATGAGGGGCC 180  
TTCACACTNC ACTTCATCCC TTCTACCCAT CACAACATAC AAAGCAACTA CACCTGGGAT 240  
TTTCCAAGC AGCTTTNATT TCCTCAGNGT CTTCTTAAT CCTATGGGNA CANGGAAGCT 300  
GCCACTNGNN TAGGGNCCAG TATAGGGGGC TTNGCTTTTT TAACTGCNTN 350

SEQ ID NO:4944

LENGTH:304

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05889

SEQUENCE DESCRIPTION:

GATCCAGCGG CAGTGACAGA ATCCAAAGAG GGAACAGAGG CATCAGCATC GAAGGGGCTG 60  
GAGAAGAAAG AGAAATGATG CAGCTGGTGC CCGAGCCTCT CAGGGCCAGA CCAGACAGAT 120  
GGGGGCTGGG CCCACACAGG CGTGACCCGG GTAGAGNGCA CAGGTAGGCC AAGGGGNAGC 180  
TCCCAGGACA GGGCAAGGGG GCAGCANGGA TACCTGCNAG CCAGGGNCTC TNTGGCCTNT 240  
NTTTCCTAN TCCNTTTTTT TGGCCCTTCT TTTTNTNTG CCGTACANCN TGCAGGCAAA 300  
AGNN 304

SEQ ID NO:4945

LENGTH:64

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05890

## SEQUENCE DESCRIPTION:

GATCAAAACA AAACAAAAA GTTGTCTCTG AAAAAAAAC AAAACAAAA AGTTGTCTCT 60  
GAAA 64

SEQ ID NO:4946

LENGTH:136

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05892

## SEQUENCE DESCRIPTION:

GATCAACCTT TGTNTGCGAG GGTCTAAGTA GGGTCGAACA CAGAAGTGGG AAGNAGAGGG 60  
GTGGGCCAGG GGCTAATGGT GTCAGTGTGT AAAGTTTTTG ACATACTAGC TCTATAAATA 120  
TATGAATATG GACAAA 136

SEQ ID NO:4947

LENGTH:162

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05893

## SEQUENCE DESCRIPTION:

GATCCTCTGC TACCAAACAA TGATGTGGAT TCTTTTGCAC AGAAATATTT AAGGTGGGAT 60  
GGTAAAAAAT GTCACAAAAG ACTCCTCACC AATACTTNAT GTTGATATCA CTTAATATTA 120  
ACCAGACTTT GCTGTATTGC AATAAACAG AGAACTGTTA AA 162

SEQ ID NO:4948

LENGTH:405

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05894

## SEQUENCE DESCRIPTION:

GATCATCGCC TCCCTGGTTT ATAGTAGACA GACCTTTTCT GTTTTTCATC CGACATAATC 60  
CTACAGGTGC TGTGTATTTC ATGGGGCAGA TAAACAAACC CTGAAGAGTA TACAAAAGAA 120  
ACCATGCAAA GCAACGACTA CTTTGCTACG AAGAAAGACT CCTTCCTGC ATCTTTCATA 180  
GTTCTGTAA ATATTTTGT ACATCGCTTC TTTTCAAAA CTAGTTCTTA GGAACAGACT 240  
CGATGCAAGT GTTCTGTTC TGGGAGGTAT TNGAGGGAAA AANCAAGCAG GATGGCTGGA 300  
ACACTGTACT GAGGAATGAA TAGAAAGGCT TCCAGATGTC TAAAAAGATT CTTTAAACT 360  
ACTGNAACTG TTACCTAGGT TAACCAACCC TGTTGAGGT ATTN 405

SEQ ID NO:4949

LENGTH:330

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05895

## SEQUENCE DESCRIPTION:

GATCTGCTCG GAATCCTCCT GCTAAAGAAG GNTCTGGGCG TGAGCTCAGC CGCCCCGCAC 60

CCCAAATCCA GTACAGGAGG CTGCTGGTAC AAATACTGCA GTAATGACAC CAATAATGGG 120  
 GCAGACACAA CAGCGTGGCT TAGATTGTGC CCACCNAGGG AAGGTGCTGA ATGGGACCCT 180  
 GTTGATGGCC CCATCTGGAT GTAAATCCTG AGCTCAAATC TCTGTTACTC CATTACTGTG 240  
 ATTTCTGGCT GGGTCACCAG AAATATCGNT GATNCAGACA CAGATTATTG TTCCTGCTGT 300  
 ATTTGCTGGT TTNCCTGGTT GAATTGGTTN 330

SEQ ID NO:4950

LENGTH:308

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05896

SEQUENCE DESCRIPTION:

GATCCAGAAT TTATTAGTTT AAAATGCAGG TGAACTTTTT TTTGCGTTTG GTTACTTGT 60  
 CTGTCAAATG TTTCTTAAA CATGAACTG AATAAGGAGA AGAGTATTTT TAACACTTAA 120  
 ATTTCTTGGC AAATTTTAAA ACATTTTNA GTCTGTAATA CACTCCACTT GANGCACTTA 180  
 AGTNTTCCTT AAATGACTTT CCTTAGGTAA TGATACTGGT GTGTTTTCCN AAGGCCCTTT 240  
 TAAAAAAGTN TNNNTAANTG ACTATCTGTT GAAANGGTGT CCTGTNCCTT NCTNCTAGNA 300  
 ATNTGGGN 308

SEQ ID NO:4951

LENGTH:97

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05897

SEQUENCE DESCRIPTION:

GATCGGAAGC AGAAGATGGC CTTCTTAAAG AGTTTAGAAG AATTATGGC AAATGTTGGT 60  
 GGTCCTCTTT GTGTAAAATA AACAACAGAA CTTTAAA 97

SEQ ID NO:4952

LENGTH:229

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05898

SEQUENCE DESCRIPTION:

GATCTGATAT TAAAACATCC AGTAGTACGA GTCTGTTTAT TGAATTTTAT GGTCCCTTTC 60  
 TTTGATGGTG CTGTCAGGTT TTCTAGGTAG AAATTATTTT ATTATTATAA TAAAACAATG 120  
 TTTGATTCAA AATTGGAACA AAATTGTTTT AAATAAATTG TCTGTATACC AGTACAAGTT 180  
 TATTGTTTCA GTATACTCGT ACTAATAAAA TAACAGTGCC AATTGCAAA 229

SEQ ID NO:4953

LENGTH:144

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05899

SEQUENCE DESCRIPTION:

GATCCAGAGC CCCTCCCAT CTTCCTCTCT CTA AAAACAA CCCTACCCC CATTGCCACC 60  
TTCACCTCTG TGTCTCCAGC TGATTAGCCT CAGACTCTTC TTNTATTGTT TTCCTTTTGT 120  
AAATAAAAAG CACCAGGTTT CAAA 144

SEQ ID NO:4954

LENGTH:105

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05900

SEQUENCE DESCRIPTION:

GATCCGTGCC CTGTAAAATG GATATNATGT TTTACTGATG TCTNTAATAC ATTTGTAAAC 60  
TTCCAATAAA ATTTGAATAA AAGAAATNTT GCCATTCTTC TCAAA 105

SEQ ID NO:4955

LENGTH:325

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05902

SEQUENCE DESCRIPTION:

GATCTGGCAG CCCTGGAGAG GGACTATGAG GAAGTGGCGC AAAGTTTCTG AGGCATGTAT 60  
GATGGGTGCA AATGAATGTC AAGTTAAAAT GGCATGTTTT CTTTCAAGC CGNTATATGC 120  
CTAGTGGGTA GTTCCCTGA TGAGCAGAAA AATTGAACTC AAATCAGGCA AGACTCTAGG 180  
NTCCACACTA AATTAAGTGG GTCAGTANCG NCANTGANCA CATTATTTC TGGTCTACTG 240  
GGTACANGTC AGCTCTGCTT ACCTGNGGAG CNTTTTGGAA GCTTAAGAGT NCTTTTGAAC 300  
CTGGCTTGAG GTCAACTTGT TAGGN 325

SEQ ID NO:4956

LENGTH:321

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05903

SEQUENCE DESCRIPTION:

GATCTGTACA GACAGGACAG AATGAACTC CTGCGGCTCT TTGGCCTGAA AGTTGGGAAT 60  
GGTTGGGGGA GAGAAGGGCA GCAGCTTATT GGTGGTCTTT TCACCATTGG CAGAAACAGT 120  
GAGAGCTGTG TGGTGCAGAA ATCCAGAAAT GAGGTGTAGG GAATTTTGCC TNCCTTCCTG 180  
CAGACCTGAG CTGGCTTTGG AATGAGGTTA AAGTGTGAGG GACGTTGCCT GAGCCCAAAT 240  
GTTGTAGTGT GGTCTGGGCA GGCAGACCTT TTAGGNTTTT NCTGCTTTAG TTCCTGAGGN 300  
ANNTNGGCA CTCTTTNTNT N 321

SEQ ID NO:4957

LENGTH:313

TYPE:nucleic acid

TOPOLOGY:linear

CLONE:HUMGS05907

SEQUENCE DESCRIPTION: